NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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CALENDAR FOR AUGUST.

"All-conquering Heat, O, intermit thy wrath!
And on my throbbing temples potent thus
Beam not so fierce!"

AUGUST breathes upon us again like a blast from the desert, suggesting visions of mad dogs, musquitoes, and restless tossings through the sultry nights, on beds apparently stuffed with hot bricks. We who live in the city can't endure it any longer, so we will emigrate to the Isle of Shoals, or Rye Beach, or to whatever place is most "convenient" to our present martyrdom, and there luxuriate in the cool breath which ocean gives us. We will even sport in the breaking billows, the wonder of all young sharks and alligators who view from a distance this new inhabitant of their native element. But we who live in the country will open our windows to the air, full of the scent of new-mown hay—so much sweeter than that "new-mown-hay" you purchase at the druggists, put up in small bottles, and which, by the way, you would "throw to the dogs," (Shakspeare,) if you were to take pains to inform yourself of its ingredients.

"*Patchouli*" is said to be made of *mummies*, and it seems quite probable, from the fact that those venerable Egyptians were "put up" in spices. Little thinks that delicate young lady, little thinks that embroidered young man, as they finish their toilets with a drop of "Lubin," that they are suggesting to some of their scientific friends, the Pyramids of Egypt!

But here in the midst of our "rural felicity," we have all the perfumes of all the apothecaries without allay. There is "musk," and "mille-fleur," and "sweet pea," and the clover blossoms, now lying low, it is true, but still breathing out a sweetness which would make the fortune of a perfumer if he could only catch it and bottle it up. Amidst it all, the "jolly hay-maker" swings his scythe, and rejoices in such good haying weather, caring little for any degree of heat, short of a sun-stroke. The fact is, there is a breeze out there for him, which doesn't reach us at our window, and, besides, he hasn't time to think much about his sensations.

The farmer's wife, we rather imagine, has a harder time of it than he himself does. Good, patient soul, she doesn't complain, though, as she works hard all day, a hot cooking-stove in doors added to a hot sun out of doors. She washes, and bakes, and irons, and revels in the perfume of soap-suds and boiled cabbage, instead of all those refined odors, before mentioned, which come to the nose of her lord and master.

It would not be strange if so many conflicting and wearisome cares should sometimes wear out her patience, were she a second edition of Job, but oftener than not, she goes about her work cheerfully, getting dinner ready for the "men folks," and setting the table in a cool place, so that they may enjoy their nooning. At night, very likely, she adds to her own duties a part of her husband's, during the busy season, and milks his cows and feeds his pigs for him, and we hope, at least, she gets rewarded with appreciating and pleasant words.

Yet work, although some people seem to have more of it than justly falls to their share, is after all a great preserver of virtue and happiness. At first view, this remark may seem inconsistent with the theory that labor was given as a curse, but the truth is, that although elegant leisure is a blessing, few people are "fitted" for leisure, just

as some people say our colored brethren are not "*fitted*" for freedom, although freedom is allowed to be a very good thing. By a curious coincidence, one of our good neighbors just passing along, remarks to another just proceeding to hang out her clothes after a Monday's wash, "We are born to labor." We did not hear what number two replied, but she might have said, "It is well we are." For how many men exempt from the necessity of labor, would turn their attention to anything useful or elevating? Some few there are—poets, artists, sculptors—who, impelled by the inspiration of genius, under any circumstances, would make the world wiser, better, and more beautiful, and a few more whom the necessity of earning their daily bread has prevented from cultivating their natural gifts—but to the majority of mankind, *Idleness* is the Devil's harvest-time.

By this means, he gathers in every year great crops of young men, who might be useful in their day and generation. Plenty of money and plenty of time sends them reeling in the broad ways so easy to enter, so difficult to return from. Most men cannot even be left a great deal to the company of their own thoughts. It makes hypochondriacs and suicides. Good, active employment is the best state for man and woman in this present existence—employment which has a definite object in view. Nothing so effectually sweeps away those cobwebs, which are always obscuring the vision with minds of a certain stamp.

Which is the more likely to take cloudy views of life, Bridget, singing over her pans and kettles in the kitchen, or her mistress hemming a cambric ruffle in the parlor? Not Bridget!

These little every-day affairs help one to take a healthy and practical view of life. For example, there is no knowing to what flights of fancy one might be led in musing over a summer landscape like this, did not a field of "waving corn" and a patch of tomatoes call home our wandering thoughts to carnal matters, and then we sigh for a double dose of dog-days, that these useful vegetables may have time to come to perfection. What could be more aggravating than to see, as we have for two years past, a fine bed of promising tomatoes lying pale and sickly, waiting in vain for sun enough to ripen them, till the frost came and blighted our hopes entirely? But let us trust that this month of August, eighteen hundred and sixty, is going to do better things for us,—that the fruits of the earth will be abundant enough to make up for all that beef-steak of which the cattle disease has deprived us, and as Nature delights in compensations, we should not be surprised if our hopes proved true prophets.

FARMERS, KILL YOUR THISTLES.—Several years since the writer purchased a farm, and the first year I sowed oats on a piece of ground which had a crop of corn upon it the previous year, and was greatly terrified to find one-fourth of an acre covered with a great growth of Canada thistle. The succeeding year I had a stout crop of grass heavily mixed with thistles. I mowed the grass about the first of August, on a good, fair hay day, and owing to the appearance of rain for the next day, I carted the hay into the barn on the very same day. The next day was a heavy rainy day. The result was that on the second year the thistles had entirely disappeared and have never grown to trouble me since, although I have since plowed the same piece of land.—A CHESTERFIELD FARMER, *in N. H. Journal of Agriculture.*

For the New England Farmer.

HIGH TAXES, AND DESERTED FARMS.

MESSRS. EDITORS:—I do not agree with Mr. Pinkham that farming is not a paying business, but I do say that farmers cannot make a living in this part of the State. Why? Because our State and County taxes have increased to such an enormous rate that our best farmers are leaving their farms, the buildings and fences are going to decay, their once fertile fields are running to brush and briers—are turned to pasturing, or are left tenantless—and the once thrifty farmer is leaving the State to go where taxation is not so burdensome, in some neighboring State where there is some economy used in the affairs of legislation. Now it is a fact that over thirty of our best farms have been left tenantless in the last ten years. The farmer pays a larger tax, according to what he is actually worth, than any other class of people. What is this tax for? It is to pay for an indolent legislature, to sit twice a year, two hours in a day for six or eight months in a year, at three or four dollars per day, to legislate on school affairs, or raising money to pay a board of education, or a superintending school committee to take the educating of our scholars from the hands of parents who are the best qualified to see to the educating of their children themselves.

It would not be so great an injury to the State generally if the cattle disease should sweep over it once in seven years, as it would for our legislature to sit one-half the year, or over, spending time and money in raising the pay from $2 to $4 per day, and the pay of many of our State, county and town officers, and all uncalled for by the people.

This is the general feeling of the farmers and laboring classes that are left in this town, and I hope that all newspaper editors who are not bought up by the Government of the State of Massachusetts will declaim against it.

Ashburnham, July 2, 1860. REPUBLICAN.

REMARKS.—Our friend "Republican" sends us his real name, but as he has a fancy to withhold it, we assent. He must have written in "a fit of the blues," or he has not investigated the matter upon which he writes quite closely enough. While we agree with him that we have too much legislation, we cannot believe that our legislation or high taxes in this State are the cause of the deserted

farms of which he speaks. They are natural causes—causes which puny man cannot control—and instead of being evidences of poverty and decay, they are to us clearly *evidences of progress and prosperity*. That is, man has exhausted the soil, cut off its timber, and carried off innumerable crops of rye and corn, and herds of fat cattle, and with these nearly all the minerals near the surface, together with the vegetable matter that had been accumulating by the agency of trees, bushes and coarse plants, through the lapse of countless generations.

Why should he remain there longer? If the land is of easy access and cultivation, and he has managed it skilfully and economically, he can remain forever and it will never fail to reward all his labor and care. But if it is not of this character, his course is precisely that of the miner,—he lays bare the vein, extracts the precious ore, exhausts it, and then seeks another and more promising spot, and in so doing proves himself to be a man of discernment and progress.

We do not agree entirely with our correspondent's views of the manner of educating the children of the State, as if there were no law compelling it, there would soon be a fearful number who could not read and write. But when we reach that Elysian age when all parents are qualified to teach their children, and have leisure to attend to it, we shall be happy to see the Board of Education and all superintending School Committees ranked with the things of "old fogydom"—but, we guess not, until then. When do you think it will be, brother farmer?

We should not feel it a hardship to extend these remarks much farther—for the subject is prolific of thought—but other matters pressing at present forbid it. We send by mail, a letter written in August, 1856, describing the country we saw at that time, and giving some of the reasons why *more than fifty farms* were deserted, which we saw in the course of one day's ride by horse power.

Open vs. Covered Drains.—Mr. Mechi thus explains the reason why covered drains are so much more effectual than open ones: "A deep open ditch will not drain the adjoining soil, because when the sides are dry the water rises up towards the surface by capillary attraction, and thus heads back the water behind it. Put pipes into the bottom of this ditch, fill it up, and it will then drain the adjoining soil."

Another Recommendation for the Apple.—Chemical researches show that good varieties of the apple are richer in those bodies which strictly go to nourish the system than potatoes are; or, in other words, to form muscle, brain, nerve, and, in short, assist in sustaining and building up the organic part of all the tissues of the animal body.—*Anon.*

For the New England Farmer.

CULTURE OF TOBACCO.

Mr. Editor:—In agricultural papers I often see inquiries relative to the culture of tobacco. And as often as I read a reply to such inquiries, I am impressed with a sense of an unsatisfactory answer. My method is this:

First, the soil should be naturally strong and warm, that which has not been abused by overcropping. And then with the following treatment a good and paying crop may reasonably be expected. Plow as early as possible after the crop of grass or grain has been harvested; weeds then growing will be destroyed, and by decaying, help to enrich the land; the seeds already ripe will germinate in time to be killed by autumn frosts; if likely to ripen their seeds too soon for the frost, they should be destroyed by a thorough harrowing, which, by the way, will be no disadvantage to the ground. The plowing should be sufficiently deep and the furrows so carefully turned over that the turf will not be disturbed; say seven to ten inches, according to depth of soil and previous treatment. When dry, a heavy roller passed over it previous to harrowing, will be found beneficial. It is now in good condition to rest till spring, and in the meanwhile receive the benefits of rain, snow, air, light and frost.

As soon as in good working condition in the spring, spread broadcast fifty ox-cart loads of well-rotted manure to the acre; and with a Share's coulter harrow, cover it just deep enough to prevent its being sun-dried. If the season is sufficiently advanced, the weather and soil warm, give it a very thorough harrowing with a fine-toothed harrow. Don't be afraid of harrowing too much. Better use horse flesh in May, than your own to drive the hoe in the hot summer months. The ground is now ready to receive the seed; and here we come to the most important point.

I would prepare the seed thus: Soak it twenty-four hours in pure rain water, caught as it falls from the clouds, that the clean, pure tobacco seed need not be contaminated by coming in contact with the filth of the roof of a human being's dwelling; then boil it eight and forty hours in a bright copper kettle, and lest the seed should not all germinate, plant five to eight grains of Indian corn in each hill. The prospect is now good for a crop that will support human life, and by promoting health, leave the brain clear and healthy, so that the soul may expand and rejoice in the contemplation of the Creator and the created, rather than sink to the level of the mountain goat and tobacco worm. G. W. H.

New Bedford, 3d Mo., 20, 1860.

Tanning Skins with the Fur on.—Nail the fresh skins smoothly and tightly against a door, keeping the skinny side out. Next proceed with a broad-bladed blunt knife to scrape away all loose pieces of flesh and fat; then rub in much chalk, and be not sparing of labor; when the chalk begins to powder and fall off, take the skin down, fill it with finely-ground alum, wrap it closely together, and keep it in a dry place for two or three days; at the end of that time unfold it, shake out the alum, and the work is over.—*Scientific American.*

For the New England Farmer.

ANOTHER VISIT TO THE HOMESTEAD OF FARMER ALLEN.

Last summer I made a visit to the homestead of Farmer Allen, and subsequently wrote an account of some of the many doings that I saw during my short sojourn under his hospitable roof, and it was published in the *Farmer*. I have just returned from another visit to my friend, and I found as many things to interest and amuse me as I did at my previous visit in midsummer. The flowers that then delighted me with their beauty and fragrance had perished when the first rude blast swept from over the distant hills, and the first frost had appeared long ago in early autumn. The birds that awoke me at early morning with their merry songs had departed to a warmer clime. The giant elms around the homestead were no longer dressed with living green, and the cattle, that in summer dotted the distant hills and valleys, had been removed to the spacious barns, and many other rural sights had vanished; but in their places I found as many things to delight me as I did in the gorgeous summer.

The next evening after my arrival at the homestead the farmer invited me to attend with him the regular weekly meeting of the

FARMERS' CLUB.

I gladly accepted his invitation, for I longed to hear the farmers talk among themselves of matters and things connected with their honorable calling. The meeting was held in the town-hall, and I was glad on arrival to find the spacious hall well filled with an orderly and intelligent audience. As Mr. Allen was President of the Club, and as the hour of opening the meeting had nearly arrived, those that had been standing talking around the stove, and in various parts of the hall, came and took their seats. I quietly followed their example, and improved the few minutes that remained before the hour of calling the meeting to order, in looking round at the pleasant faces of the robust farmers that mainly comprised the audience. On the front seat sat a sturdy farmer with his four healthful looking sons, and behind him sat the village doctor, who seemed to take as much interest in the subject as if he had been attending a medical lecture. He was accompanied by his only son, who, in a conversation that I subsequently had with him, told me that he had made up his mind to be a practical farmer. The lawyer of the village was there, and the parsons of both of the churches of the place, sitting side by side, as if they were of one faith.

The President announced the subject for discussion for the evening to be "*What breed of cattle is the best adapted for our New England farms?*"

In opening, he said that we had many breeds of cattle that had been imported, besides our common native stock; he alluded to the "Oakes cow" as a native animal, and said it was well known that our best stock, both for the dairy and work, came from this native growth. In concluding he said the subject was one of much interest and he hoped all would avail themselves of the opportunity to speak upon it. He called on Farmer Boyden for his opinion of the matter.

Mr. Boyden said he was in favor of the native breed, both for cows and oxen; that he had in his barn a cow from the native stock that he thought would compare favorably with any of the foreign stock. Deacon Farnham said he considered the Devon cattle the best; they would thrive on poor hay, and the oxen made capital roadsters. In concluding, he said he had some of the Devon stock for sale, and invited all present to give him a call, if in want of good stock. This remark caused a smile on almost every face. Farmer Tanner was in favor of the common cattle; he said that a young man just starting in life could not afford to pay such a price for stock as that demanded by those that had fancy stock for sale. He once owned the famous Durham bull "Berry," and found that a cross between the pure Durham and our common cattle resulted favorably to both breeds. But it is impossible for me to remember one-half of the interesting things that were said at this meeting; the time passed speedily away, and when the old church clock tolled the hour of nine, the meeting broke up, each one taking with him some new idea, which, if rightly developed, will result to his pleasure and profit.

On my way back to the homestead, Farmer Allen spoke to me of the great importance of having these clubs in every village in the country; he had found them to be a great benefit to himself; and although the farmers' club had not been established but a year in the place, yet in that short time it had been the means of doing much good. He mentioned one case as follows;

Shortly after the club had been organized, and while yet it was struggling for an existence, the following subject was given out for discussion at the next meeting, viz: "*The Preservation of Farm Buildings.*"

There was living, in a distant part of the town, a man who had come into possession of a fair farm soon after reaching his majority, but who had suffered the buildings upon it to go to decay until the cold winds of winter entered at every side, and his poor cattle stood a fair chance of perishing from the cold. His house had kept pace with the barns, and the old hats and gowns stuffed in at the windows were in keeping with its black, weather-beaten exterior. Farmer Allen said he thought if he could get this man at the meeting, he could infuse some ideas into him that might be useful; he invited him to be present, which invitation he somewhat reluctantly accepted. Farmer Allen also invited some of his city friends to come out and take part in the meeting. They came, as did also the invited guests. The speakers told how much less fodder cattle would eat that had a warm and comfortable shelter, than those whose only shelter from the wintry blast was the lee side of a hay-stack; they spoke of the beauty and comfort of having good buildings on the farm, and described in glowing language the advantages of keeping in repair the farm buildings. About a fortnight after the meeting, Farmer Allen, in passing by that way, was delighted to hear the merry sound of the hammer and saw in the direction of Neighbor Slack's homestead, and on coming nearer, was still more surprised at seeing a force of men engaged in putting in complete repair the house, barn, stable, and even the cow-house! He said his delight knew no bounds when his neighbor came to meet

him, and grasping him by the hand, thanked him for inviting him to the meeting of the club! Nor did the march of improvement stop here—the fields afterwards were better cultivated, the children better clothed, the wife happier, and the man himself, instead of spending his winter evenings at the village tavern, is now spending them with his family, and on each Wednesday evening he attends as *Secretary of the Farmers' Club!*

A few days after my arrival at the homestead, I wished to write a letter to a city friend, and on signifying my wish to Mr. Allen, he invited me to walk into a room that he called

LIBRARY.

I entered a moderate-sized room, and found a comfortable desk, with all the necessary writing materials at hand. After I had finished my letter, I looked at the cases of books that lined one entire side of the room. I found them to be mostly agricultural works of worth. Here was "Allen on Farm Buildings," a well-known and reliable work; at its side was "Dadd on the Horse," "The Complete Cattle Doctor," by the same author, and Stephens' "Book of the Farm," "Cole on Fruits," "Youatt on the Sheep," and all the back volumes of the "*Monthly New England Farmer*," neatly bound. Judge FRENCH's new book on "Drainage" lay on the table, and had evidently been studied with care. FREEMAN.

Sunnyside, February, 1860.

SWEENEY IN HORSES.

Will you tell what you believe to be the best remedy for curing the sweeney in horses, as it is very troublesome to cure when it once gets fairly seated, and is very painful to the horse? A. A.

Answer.—The sweeney is a shrinking of the muscles of the shoulder, usually caused by a sudden strain in drawing, or by alighting hard upon the fore feet after a jump. We have had considerable personal experience with this difficulty in horses. If taken fresh, it is best to bleed the horse in the leg from the vein on the inside of the arm, called the plate vein, which will allay the inflammation, but for an old case, this is nearly useless. Also physic the horse, and apply fomentations upon the shoulder blade, and the inside of the arm. In all cases, take off the shoes, and give the animal rest in a pasture, or on a dirt bottom in a large stall. If the case is not of too long standing, it is well to rub the shoulder with penetrating oils, like oil of spike. Our practice was to rub with a corn-cob, and hemp crash cloth. When once seated, be careful of overdriving and cooling off, as you would for a case of founder. A long rest in the pasture is the best remedy we ever tried.—*Ohio Cultivator.*

CATCHING BEES.—A simple contrivance has been invented by M. Dagon, of Moret-sur-Loing, in France, for receiving and inclosing bees from the hive, or when swarming. It consists (says the London *Bulletin*) of an elongated muslin bag, distended on cane hoops, and opening and shutting at the mouth by a running string. The bag being attached to the branch on which the bees are swarming, and the inside rubbed with honey, all the bees will soon make their way to the bottom, when the mouth can be closed, and the bees conveyed away in the bag. The same contrivance is applied to abstract the bees from the hive and obtain the honey.

For the New England Farmer.

LUNAR INFLUENCE ON THE TEMPERATURE OF THE EARTH.

MR. EDITOR:—I did not intend to trouble you with anything further upon this subject, but it seems not well to cherish error when the truth can as well be known. In your issue of Feb. 11, I find your correspondent, "N. T. T.," of Bethel, Me., has again responded on this subject, and wishing to gratify him, and as many of your readers as take an interest in the subject, and if possible set the matter in a correct light, I send you the following list of observations on the occurrence of frosts in September, and their connection with full moon, for the last 20 years. And here, (as my temperature tables cover only the last four years,) I with pleasure acknowledge my indebtedness to JOSEPH WEATHERHEAD, Esq., of this city, who has kept accurate meteorological tables for the last twenty years, embracing temperature and barometrical, and of falls of rain and snow, &c., and who kindly granted me the privilege of consulting them.

I have noted all the instances in which the temperature has fallen to 39° in September, as a light frost in some sections generally occurs at that point, as well as every frost in August, and when none occurred in September, the first that occurred in October, as in 1841. I give the lowest observed temperatures at each frost, and that the reader may judge of their extent, will state: When the temperature becomes reduced to 35° or 36°, a general frost usually occurs, quite severe in marshy localities; 34° will produce a severe frost in most situations, and 32° or lower a very severe one, capable of destroying most tender plants. The record is as follows:

Date.			Min. Temp.	Full Moon.
1840.	Sept.	4,	39°	
"	"	13,	32	
"	"	14,	31	11th.
"	"	23,	36	
"	"	29,	32	
1841.	Oct.	1,	32°	Sep. 30.
1842.	No record in Sept.			
1843.	Sept.	13,	35°	8th.
"	"	14,	39	
1844.	Sept.	7,	39°	
"	"	23,	37	
"	"	24,	32	26th.
"	"	27,	32	
"	"	28,	28	
1845.	Sept.	12,	39°	
"	"	13,	32	15th.
"	"	17,	38	
1846.	"	17,	39°	
"	"	29,	39	5th.
"	Oct.	4,	32	
1847.	No record for the greater part of Sept.			
"	Sept.	29,	39°	
"	Oct.	1,	37	24th.
"	"	2,	32	
1848.	Sept.	13,	35°	
"	"	14,	36	
"	"	17,	34	13th.
"	"	27,	27	
"	"	28,	30	
1849.	"	3,	39°	2d.
1850.	"	14,	39°	
"	"	18,	37	21st.
"	"	30,	34	
1851.	Sept.	15,	32°	
"	"	16,	35	
"	"	17,	37	10th.
"	"	23,	36	
"	"	25,	29	
1852.	"	14,	39°	
"	"	17,	37	28th.
"	"	18,	39	
"	"	30,	33	
1853.	"	26,	39°	17th.
"	"	30,	28	
1854.	"	17,	38°	
"	"	21,	35	
"	"	22,	36	6th.
"	"	23,	39	
"	"	30,	32	
1855.	Aug.	31,	38°	
"	Sept.	20,	39	25th.
"	"	21,	37	
"	"	29,	33	
1856.	Sept.	25,	37°	14th.
1857.	"	8,	38°	
"	"	19,	39	4th.
"	"	30,	30	
1858.	"	23,	34°	
"	"	25,	33	
"	"	26,	34	22d.
"	"	27,	35	
"	"	28,	38	
"	"	29,	32	
1859.	"	7,	39°	
"	"	8,	37	12th.
"	"	14,	35	
"	"	15,	34	

It is true that in the above table there are several instances in which a severe frost has occurred at full moon, and it is equally as true that as many severe frosts have occurred at new moon as at full moon, and that frosts seem to occur at random, as far as the influence of the full moon is concerned. There is no record in regard to the frosts of September, 1842, owing to the absence of Mr. Weatherhead during that month, and the same occurs in the first half of September, 1847, but otherwise the record is complete and reliable, and these breaks cannot materially influence the general result.

I have met with but little in my scientific readings that bears directly upon the subject of the moon's influence upon the heat of the earth. The older philosophers, after very careful experiments with powerful lenses, came to the conclusion that the moonlight was incapable of producing heat. Later researches, however, seem to prove the contrary, concerning which Humboldt observes:

"That the moonlight is *capable of producing heat*, is a discovery which belongs, like so many others of my celebrated friend Melloni, to the most important and surprising of our century. After many fruitless attempts from those of La Hire to the sagacious Forbes, Melloni was fortunate enough to observe, by means of a lens of three feet in diameter, which was destined for the meteorological station on Vesuvius, the most satisfactory indications of an elevation of temperature during the different changes of the moon. Mosotti-Lavagna and Belli, professors of the Universities of Pisa and Pavia, were witnesses of these experiments, which gave results differing in proportion to the age and altitude of the moon. It had not at that time, (summer, 1848,) been determined what the elevation of temperature produced by Melloni's thermoscope expressed in fractional parts of the centigrade thermometer, amounted to."*

He further observes in a note: "It had always appeared sufficiently remarkable to me, that, from the earliest times, when heat was determined only by the sense of feeling, the moon had first excited the idea that light and heat might be separated. Among the Indians the moon was called, in Sanscript, the King of the Stars *of cold*, also, the *cold-radiating*, while the sun was called *a creator of heat*. * * * * Among the Greeks it was complained that 'the sunlight reflected from the moon should lose all heat, so that only feeble remains of it were transmitted by her.'"

It is to be regretted that this worthily world-renowned scientist could not have given us more definite information respecting the extent of the moon's heating powers, and the period of her age and altitude at which they were the strongest. It must seem evident, however, from analogy, that the amount of heat must be in direct proportion to the quantity of light and the altitude of the moon, and consequently greatest at full moon and high moon. Doubtless the calorific influence of the moon is exceedingly slight, but whether slight or otherwise, must, taking this view of the case, conflict directly with the prevalent opinion that it is coldest at full moon. Without further speculating, I leave the subject, perhaps where I took it up, although I fancy I have shown facts enough to prove the fallacy of this popular notion. And there are many other equally well received notions in regard to certain almost "infallible" weather prognostics that I do not hesitate to consider equally fallacious.

Springfield, Mass., 1860. J. A. A.

* Cosmos, vol. 4, p. 143.

REMARKS.—The above communication was received many weeks since, but has been delayed in consequence of the crowded state of our columns. Now that the farmers have left the pen for the plow, until their crops are perfected, we can make room for it without driving out articles that were written for, and applicable to, a particular season. We hope this explanation will be acceptable to our respected and valued correspondent.

EXTRACTS AND REPLIES.

GOOD PROPERTIES OF THE MILKWEED.

I noticed in the last *Farmer* a description of the common milkweed; but not a word was said about its ever being used for food, either for man or beast. I was told more than forty years ago, that it was excellent for "greens;" and being urged by a sister to lay aside my fastidiousness and just taste of it, I found at once that it was indeed excellent—but little inferior to green peas, which it as nearly resembled as anything I could compare it to.

Now, mothers, don't be afraid of it because you find numerous little insects creeping over its beautiful leaves, or snugly ensconced among its tiny blossoms; they doubtless know its good qualities, or you would not find them there. Gather them while the stalk is brittle, say from four to six inches high, break out the little bud, and boil the stalk and leaves until soft and tender. This, with a slice of good fat beef or pork, and other "fixins," is good enough for AUNT RHODA.

North Cambridge, Vt., 1860.

GRUBS AND CABBAGES.

I set out my cabbage plants a week ago, placing a teaspoonful of salt at the bottom of the hole, because those which I set in this manner last year did well, and were not molested by the grubs, but now about half of the plants have been eaten off. I have applied ashes, but without success. How shall I save the plants? I find the grub just beneath the surface of the earth, looking like a small worm, but under the microscope exhibiting legs, which he uses about as awkwardly as the elephant does his.

A few tomato plants have dropped off like the cabbages, but I find no grub at the roots. What is the cause?

DEAD HENS.

During the past year I have found some thirty hens dead at different times and in different places about the premises. The comb is always very black. Can you inform me what the disease is, and of its cure?

Hopkinton, June 11, 1860. G. A. A.

REMARKS.—The remedy for the cabbages is to use the finger about the plant, find the grub and kill him. We know of no other. He will not stay his progress for salt or snuff, but when the scissors take his head off he will confess himself a "goner." We cannot account for the death of your fowls.

LEGHORN HENS.

I saw in the *Farmer*, three or four weeks ago, a statement by Mr. L. R. Hewins, of Foxboro', recommending the Leghorn fowl as superior to all others for their laying qualities, &c. I took a trip to his house a few days ago to ascertain more about it, and was so well pleased with the looks of the fowls and the information that I obtained there, that I bought a dozen of

their eggs to put under a sitting hen. He, as well as myself, had tried the Chittagong, which have one serious fault. When they want to set, after laying a litter of some twelve eggs, it takes nearly as long to break them up and have them commence laying again, as it does for them to lay a litter of eggs. Besides, being large hens, they are great eaters. The Leghorn seldom wants to set. I think Mr. Hewins told me that his Leghorn fowls had laid regularly since last fall, and have not wanted to set. The hens are not large, most of them white, with yellow skin and legs. The males have very large single combs and large wattles.

Mansfield, June, 1860. I. STEARNS.

CATTLE IN THE BARN AND IN THE YARD.

I would like to inquire through the medium of your paper if it is judicious to stable cows at night through the summer season, or to let them remain in the barn cellar? The objection made to the former proposition, is that it is unhealthy and uncomfortable for the cows to be confined in the barn at night through the warm weather; whilst the objection to the latter plan is, that it fails to make as much manure as the former. Which objection is the most weighty? Please to answer as soon as convenient, and oblige A SUBSCRIBER.

Woonsocket, June, 1860.

REMARKS.—If we could have things just as we pleased in regard to this matter, we should prefer a large, well-sheltered yard, with ample shed accommodations, and then leave the cows to lie down in the yard or under the shed, to suit their own feelings. We believe in the largest liberty for cattle, compatible with their safety and our interests. There would not be much loss of manure if the bottom of the yard and shed were first covered with muck and then litter, as they should be if the cattle are to lie in them. There is no doubt on our mind that the cattle would be more comfortable and healthy in such a yard than they would be tied up in the barn.

THE ONION MAGGOT.

I accidentally learned the following from a man who said he *knew* how to raise onions, and not be troubled with the maggot. He said he had a nice lot of onions, and the maggot attacked them. He took a teakettle full of boiling water and poured upon a few rows, thinking if *he* did not kill them the maggot would. This operation did not kill the onion, but it did kill the maggot, and after applying the water to the remainder he succeeded in raising good onions, and it always has since, when tried. S.

Whether a truth or a lie,
You may have as cheap as I.

North Charlestown, N. H., June 5, 1860.

A SUBSTITUTE FOR MUCK.

Farmers often complain of a want of muck on their lands, and the degree to which they use absorbents for liquid manure depends almost wholly on the presence or absence of this valuable material. When a farmer has a muck deposit on his premises, let him rejoice in his good fortune, but why should those who have but little or none feel hampered when making up their compost heaps? The entire contents of the heap are destined for the tillage land of the farm; why then might not the absorbent portion be taken from the surface of the soil to which with the distributing of the manure it will be restored? J. J. H. G.

Marblehead, Mass.

CORN AFTER BUCKWHEAT.

As the season has arrived for raising buckwheat, I would inquire if the growing of it is injurious to the raising of Indian corn on the same land afterwards? Hermon Hall, Esq., of this town, says that after raising a crop of buckwheat on a piece of land he could not get a crop of Indian corn upon it, as he was in the practice of doing before. I. S.

Mansfield, June, 1860.

AQUEDUCT PIPE.

I would like to get information through your columns about the water cement aqueduct to bring water from a well to my buildings. Is the water better than when brought through lead pipe? How should it be laid, and the cost per rod? A SUBSCRIBER.

Deerfield, Mass.

REMARKS.—Cement pipes are laid, and we believe are durable when below the frost, but we know little of the mode of construction or cost. There is nothing, in our opinion, equal to good pine logs, either for health or economy.

HAYING AND HAY CAPS.

The season of haying is near at hand, and it will be a matter of comfort and economy to all concerned in it to have every preparation made in advance that will facilitate the gathering it quickly and well.

Is the hay cart or wagon in order with proper outrigging, so that a ton or more can be thrown on readily?

Are the binding pole, or rope, the forks, rakes, scythes, hay-poles, grindstone, all in order and ready for use?

Is a mowing machine selected for the smooth farms where twenty-five tons of hay are cut, and a good horse rake, or will you wait another year in the hope of getting something better?

Is the barn itself ready for the crop? Are those openings in the side, or that ugly leak in the roof, repaired, so that the loss will not trouble you as it did last year?

"All these are ready." Very well, then. Now by judicious management, that is, by good calculations, working moderately and living well—you may get as much enjoyment out of this season as the "gadders about" do in their trips to become a little more fashionable, and spend their hard-earned money.

Haying is a pleasant labor—it seems to inspire all who engage in it; the crop comes in so rapidly, and there is such a wealth in the harvest, that all the household have a cheerful animation and desire to help it along—the women assisting in a pinch, cheering on the labor with kindly words, or devising some unexpected treat when the day's toil is done. Bless the women, they are always ready to help along a good cause.

DRYING THE CROP.—The idea is common that hay cannot be made too much, but it is an erroneous one, and great loss is incurred by its prevalence. If exposed too long to the sun, and the hot, drying winds, it becomes hard, brittle, loses its leaves and a considerable portion of its nutritive juices, and in this condition, if the grass is coarse, the hay from it is not much better than dried brush; at any rate, its value is much depreciated. The farmer may learn something of his wife in this matter, if he will observe what course she takes in preserving her sage or other herbs,

for culinary or medicinal uses. They are not cut and spread in the blazing sun, and their juices blown away by the winds, but when cut, are taken directly into the shade, where they will dry slowly. This is the practice with the Shakers who put up large quantities of herbs for the markets; they incur heavy expenses for large drying rooms, where their herbs are out of the sun, but in well-ventilated rooms. When these herbs are thoroughly dried so that they can be readily pulverized, they retain very nearly their natural color and original fragrance, so that one pound of them is probably worth as much as two or three pounds would be dried in the sun. But as we cannot provide *rooms* for drying our grass crops, we must come as near that process as we can economically, and that may be secured by the use of cloth coverings, called

Hay Caps.—Any farmer's wife or daughter can make them. They should be two yards square, with loops at the corners through which to thrust pine sticks fifteen inches long up into the hay. Or they can be purchased at a fair price, already made, of the Messrs. Chases & Fay, 233 State Street, Boston, or of Nourse & Co., 34 Merchants Row. A set of these caps, properly taken care of, will last a farmer his life-time, as all the care they need is to *be kept dry when not in use.*

The course to be pursued in the use of caps is, to cut the grass just at night, or early in the morning, spread it and turn it before one o'clock, and immediately after dinner cock and cover with the caps. Cocks well made up, and covered with such caps as we have described above, will come out unharmed after a storm of three or four days. After a rain, when the surface has become dry and slightly heated, the cocks will need little more than to be turned over and partially opened, for it will be found that the process of making has been going on admirably all the time—that the hay is *cured*, not merely dried—that the leaves adhere to the stems, and that it retains a lively green color and a delicious fragrance. Take such a cock of hay and compare it with a cock that has not been covered, allowing the eyes, nose and hands each to test it, and no unprejudiced mind will longer doubt the usefulness and economy of hay caps.

Valuables.—If your flat-irons are rough, rub them with fine salt.

If you are buying a carpet for durability, choose small figures.

A hot shovel held over varnished furniture will take out white spots.

A small piece of glue dissolved in skim milk and water will restore old crape.

Ribbons should be washed in cold suds and not rinsed.

Scotch snuff put in holes where crickets come out will destroy them.

For the New England Farmer.

THE CATTLE DISEASE.

In the *American Agriculturist* of 1843, I find the following:

"The epidemic among cattle in Ireland is called pleuro-pneumonia, or galloping consumption, and is thus described. Acceleration of the pulse, which ranges from 80 to 120. The animal invariably hangs his head, accompanied by dryness of the muzzle; the flanks heave according to the severity of the disease; a husky cough, weeping from the eyes, total loss of appetite, grinding of teeth, secretion of milk suspended, the belly drawn up, a low moaning, together with a grunt at every expiration, the lungs appearing, also, to be filled by a painful effort only. These symptoms are all progressive. The treatment should consist of active blood-letting, when the first symptoms appear, to be repeated afterward if necessary, followed up by sedative medicines and general spare diet. When an animal is attacked, it should be bled at once, this remedy being peculiarly applicable to affection of the lungs, and the best advice should be procured. If this treatment be not followed in the early stages, rapid effusion sets in, and no power can save the animal. From observation, we are also of opinion that high bred and high fed cattle are more subject to attack, than those which have been less attended to."

You see by the heading of this piece, that the disease is called an epidemic, which I have seen disputed in your paper.

REMEDY FOR INFLAMMATION.

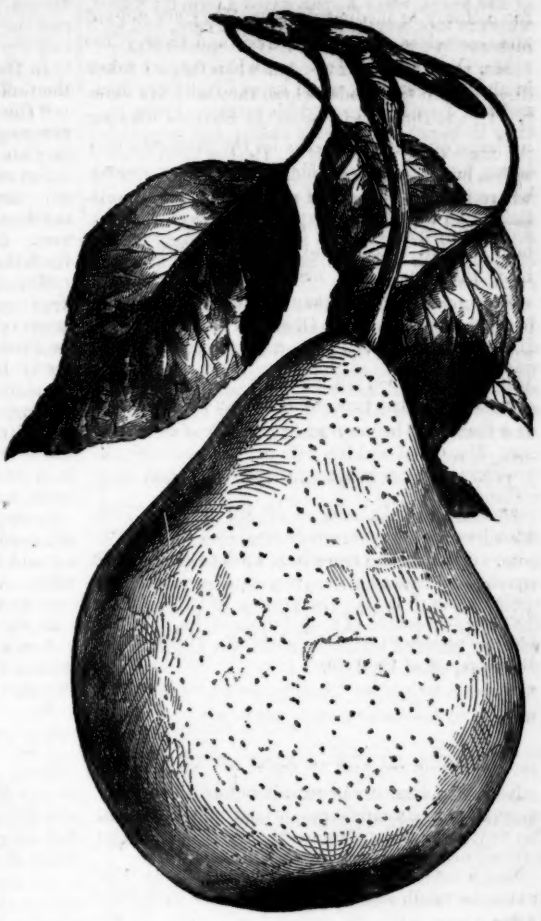
I find by trial, that lamp oil is an excellent remedy for inflammation or hardness of cows' teats and bag. I have had a cow's teat so hard and feverish, that no milk could be got from them at night, and by applying lamp oil they would be soft and well in twenty-four hours. A Reader.

NEW PUBLICATIONS.

The Young Farmer's Manual; Detailing the manipulations of the Farm in a plain and intelligible manner. With practical directions for laying out a farm, and erecting buildings, fences and farm gates. Embracing also *The Young Farmer's Workshop*; giving full directions for the selection of good farm and shop tools, their use and manufacture, with numerous original illustrations of fences, gates, tools, &c., and for performing nearly every branch of farming operations. By S. Edwards Todd. C. M. Saxton, Barker & Co., N. Y. For sale by A. Williams & Co.

This is the title of a new book just issued by the enterprising agricultural book publishers whose names are appended above. It clearly indicates the text of the book, so that all we have to say is, that it is evidently written by a man who knows the farm intimately, and knows how to talk about it to others. He has been fortunate in selecting as one of his topics, the *Young Farmer's Workshop*, and he does not give it any more importance than it deserves. A farm without a workshop! We scarcely know how the farm *can* be managed. Hamlet, without the Prince! Well, Mr. Todd, we shall keep shady about the farm, but in the supplies and skill exercised in the workshop, we cannot knock under to you, or even your book. We hope everybody will purchase a copy.

THE HOWELL PEAR.



This excellent pear was received many years since, from New Haven, where it was produced from seed, by Thomas Howell, Esq. The growth of the tree is erect and good. The fruit is uniformly fair, and not liable to crack. *Size*, rather large. *Form*, obtuse pyri form, inclining to oval. *Stem*, long and stout, frequently fleshy at the base, and set without much depression. *Calyx* open, moderately sunk in a shallow basin. *Color*, pale clear yellow, with fine blush on the cheek, marked with minute russet dots, and shaded with some russet patches. *Flesh* white, half melting, juicy, with rich aromatic flavor. *Maturity*, October. *Quality* excellent, nearly *best*.

The original of the above was furnished us by Col. WILDER, from his ample grounds at Dorchester, as well as the description which now accompanies the engraving. We have often been able to embellish our columns with portraits and descriptions of fine fruits through his skill and kindness.

WEEDING TIME.

The grocer who allows swarms of flies and cockroaches to visit his sugar barrels and eat at will, would not be set down as an economical or thrifty man. No less should the husbandman be looked upon as a good manager who allows weeds to rob his crops, by feeding upon the substances which they need to perfect them. Weeds are robbers, but it is robbing without crime on their part. The fault of the matter lies with those who *allow them to rob!*

When some younger than we are now, writing-masters used to excite us by their proclamations: "Writing made easy in four lessons," said they—and we wondered through what alembic we must pass to acquire such an accomplishment in four easy lessons. Then when we had to weed carrots, and come out of the field at night in the shape of a hoop, how we longed for something like the writing-master's alchymy, whereby we could weed the confounded things without turning ourselt into a hoop-snake, or iooking at night like a wilted parsnip!

Now we have it. Blessings on the inventors! *Mann's Vegetable Weeder is the thing.* Why, one can almost ride on it and take a nap, and at the same time do more and better work than with any other implement we have yet seen. That is, we think so now, after a trial of it of only a part of two days. We hope to be more thoroughly acquainted with it, and will state the result, whether for or against it.

For the New England Farmer.

IS FARMING PROFITABLE?

MR. EDITOR:—Much is said in your columns in answer to this question. I will relate a case, which came within my earliest recollections, and interest in farming.

Some forty years ago a young man took to himself a wife, and soon after, the young couple moved on a farm which he had leased. The farm was poor and hard to cultivate, and not worth more than $1000. It contained about 100 acres. The man and his wife were poor, and as he has often said, "he could have carried all that they both possessed on his back at one load."

His name for convenience sake, I will call Obed. He managed to stock this farm and supply himself with utensils as he could best do when, after three years, he removed on a farm near by, which he cultivated "at the halves," a term which I believe is generally understood in New England. Obed managed this farm successfully, to the entire satisfaction of his landlord, I think for the term

of five years, when he purchased a farm for $2000, which is now worth, from his good care, and with increase in farm property, $8,000 to $10,000.

Mr. Obed managed to pay for this farm, I think in about three years, when he was free from debt, and had greatly improved his estate. From that time he began to lay aside money, and would lend the same on good security. He has been blessed with a large family of children, two of his sons he has settled in the learned professions, one a physician and the other a lawyer, and he is now worth $30,000 to $40,000, and for the last twenty years of his life has been as independent as any one could be.

Here is one witness that farming *is* profitable. It will be seen that Mr. Obed labored hard. He did so. He was attentive to his business, and was prudent, all that. Who can succeed in any calling without diligence and frugality? It shows, and shows conclusively, that money can be made on a farm under very embarrassing circumstances. Mr. Obed and his wife commenced with the determination to become independent, and they did so.

No one ever has been successful in mercantile life without giving his whole attention to his business. A successful merchant, I acknowledge, will accumulate money more rapidly, by successful speculations, but take the average of traders from the commencement of their business life, and they will not succeed better than did Mr. Obed.

Boston, June 12, 1860. D.

For the New England Farmer.

FARM HINTS---FARM FACTS.

Now, Mr. Farmer, never allow bushes to grow around the walls and fences of your mowing fields. No neat farmer does this—when you have done haying, use the pick and nigger hoe.

Never allow your grass to stand too long, lest it become tough and wiry, and you lose its sugary juices.

Never let your grains stand too long, lest they shatter and sow the field for another year. When the berry begins to harden, cut the grain at once—it makes better bread.

Never allow your hay to lie over night in spread or winrow—make it in large cocks, and save all its aromatic sweetness which constitutes its nourishing value.

Never use the horse rake that scrapes to the ground, taking with it sand, hassocks and earthy matter that will give your horse the heaves and assist your cows to a cough and consumption. The less dust in your hay, the more healthy your animals.

Never allow your colts or horses to stand on their heated offal month after month, by daily bedding down with straw for cleanliness. You will surely propagate pinched hoofs, dry tender feet, stiff ankles, heated, swollen legs and cough, from strong ammoniacal exhalations—rather give them granite, brick or lead as cooling substances to stand upon, bedded down at night; then their feet are prepared for hard roads and paving stones. How many farmers kill their horses with kindness, or rather cripple them for life by standing them in a manure pit.

Never dock or cut off a horse's tail; the barbarous pulleys and cleaver were never made to mar the natural beauties of the horse, nor to give him the excessive torture he is compelled to suffer. If you would make a young horse look old, chop off his tail. If you would keep him youthful and colt-like, let alone this natural ornament. It was made for use—remember "fly time"—how they bite!

Never plant small potatoes (less regarded than any other seed;) always cut off the "seed end" or small eyes, and avoid "pig potatoes" in digging time. None more skilled in potato growing than our Long Island farmers. This is their practice.

Never sow your wheat without soaking in salt pickle and raking it in wood ashes. See experiments of the two brothers out West, published in the *Farmer* recently. The pickled seed produced nearly double in quantity, other advantages being equal.

Never cultivate four acres of corn to get what one of the same can be made to produce—yet, this is one of the common errors among farmers. It is nothing remarkable to get one hundred bushels of corn to the acre.

Never put into the hands of hired men and boys, old, lumbering farming tools, nor put the team to a superannuated old plow and expect a fair day's work. When the tools are light and modern, labor has a pleasant relish.

Never omit to have the barn-yard well covered with soil at this season, nor to move the cows around the yard and secure their droppings before they leave in the morning; then with a shovel dig a hole and bury—keeping the yard clean, and saving the value of the manure from the drying sun.

Never allow your carts, wagons, sleigh-sleds, or any farming tools, to be exposed to sun and rain when not in use, and even the draft chains that are resting on the fence, put them all under cover, if you would consult economy. How often do we see a sled on the road-side, with its shoes rotting on the ground, when a minute's labor would relieve it by putting under two sticks?

But, Mr. Editor, I have no fear that I have offended the well-ordered farmer by these suggestions, neither do I vainly suppose they afford him any instruction. It is those whose gates are off the hinges, the bars down, the manure pile of last winter at the end of the barn, that should now be in the field to help the corn grow, that may take and perhaps be benefited by these hints.

Brooklyn, L. I., 1860. H. POOR.

THE HOMESTEAD, published at Hartford, Ct., is one of the best agricultural papers we see. It has a powerful team of Editors, and they turn out their work completely finished for public use. Take and read *The Homestead*, brother farmer, and you will soon become a wiser man.

CRANBERRY CULTURE.—"J. M., Orange, Mass.," will find his questions in relation to cranberry culture fully answered in "*Eastwood on the Cranberry*," a valuable little work which costs fifty cents. We could answer many of them, but it would not be so satisfactory as would the book.

For the New England Farmer.

HONEY BLADE---HUNGARIAN GRASS.

I write for further information than what the *New England Farmer* has yet given, respecting the Hungarian grass. Something over one year ago I received several copies of a small pamphlet of sixteen pages, (one copy of which I now send you,) which magnified the good qualities of the Hungarian grass, called in the pamphlet the "Honey Blade." The book extolls the good qualities of this grass beyond all belief. It says: quoting an article from a writer from the *Valley Farmer* of 1857, that "it is a crop that never fails. Wet or dry, cold or hot, it has been a good heavy crop." * * * "As hay, it is superior to Timothy, that old and substantial favorite of every farmer. Horses, changed from Timothy and corn to Hungarian, begin to thrive on half the usual allowance of corn, and put on that fine glossy coat so much admired by stock-growers.

"It is not the hay alone which gives value to this crop; it produces seed at the rate of twenty or thirty bushels to the acre, which in nutritive properties is much superior to oats; it is heavier, and contains a larger amount of oil. We know of a farmer in this section, last season, who from five acres threshed out one hundred and fifty bushels of seed, which is sold at four dollars a bushel, making six hundred dollars. A farmer in Illinois sowed some land with this seed after taking a crop of spring wheat from the same land, and produced three tons of good hay per acre."

A correspondent of the *Albany Cultivator*, in answer to an inquiry for the best substitute for hay, gives preference to the Hungarian grass over every thing else. He says: "It grows at the rate of six or seven tons per acre. The seed is of an oily nature, and horses or cattle will eat the seed before corn or oats, and the hay before Timothy, or clover. Horses having been fed on grain, and good Timothy hay, began to improve immediately in flesh, and their coats more sleek and shiny. Cattle will do very well on this hay after the seed is threshed out. The grass has good roots, grows deep in the ground, and will stand dry seasons much better than any other kind of grass. After the grass is mown, it will sprout or sucker very thick, and will make much more pasture than Timothy and clover, after being mown, during the summer and fall. In some sections where Timothy sells for ten dollars per ton, the hay of the Hungarian grass brings from twelve to fifteen dollars per ton."

The New York *Tribune* quotes from a correspondent in Vermont, who is jubilant over his success in growing the Hungarian grass. He produced two tons of dry grass, and twenty-five bushels of seed from four quarts sown. He claims for it an average yield of over six tons of dry grass, and thirty bushels of seed per acre."

An Iowa farmer, located in a section where this product has been well tested, states that the "usual yield of the Hungarian grass, in that section, is about six tons per acre; but the premium crop of this county, as returned to our late fairs, was eight tons and some hundred pounds to the measured acre, of good dry hay, suitable to be put in stacks, duly sworn to by disinterested parties, to the satisfaction of the committee, in order to receive the premiums."

The above pamphlet states that the manner of sowing is the same as for oats or wheat. It says: "An acre sown about the last of May, would, at the first cutting in July, yield, at a fair average, four tons, and at the second cutting, about one month later, would yield two tons more, making six tons to the acre. The amount for seeding an acre should be about sixteen pounds." As one bushel of the seed weighs forty-eight pounds, it would be one-third of a bushel to sow an acre. It is stated that it can be sown as late as August, and insure a crop.

I will now state that after receiving the pamphlet from which I have made the above extracts, I sent three dollars by a Mr. Chase, whom I came across in Mansfield, (his wife residing in the town at her father's,) who said that all the seed which was to be had in New York, came through his hands as an agent, and offered to send me, as he was returning to New York, a bag of the genuine seed. But he never sent it. His wife, however, paid me back the three dollars, but I got no seed. This Mr. Chase said that the true geniune Honey Blade Hungarian grass seed was black, or of a very dark color, and that the light colored was not. I have sent to the agricultural warehouse connected with your office for some of the seed, but have not yet sown it. I find that a small part of that seed is black; say one-tenth part. I intend to pick out a small quantity of the black seed, and sow it alone in a drill in my garden, in order to ascertain if its product, when it ripens, will be all black seed, and find out its difference from the other seed, which is of a yellow cast.

I think if it is of half the value as represented in the above pamphlet, it ought to be more generally known and cultivated. Will not some of your readers furnish more information upon the subject?

Thinking it possible that you have not seen Mr. Felix H. Benton's pamphlet, I hereby forward it to you, for your inspection.

Mansfield, June 11, 1860. ISAAC STEARNS.

REMARKS.—We have seen the pamphlet referred to, and examined it with some care, and do not believe one-half of the results which it states can be realized in New England. We sowed the Hungarian grass seed on land that would have brought us fifty bushels of corn to the acre, and got about one ton per acre, of what is called Hungarian grass, when made into hay. It is a variety of millet, and will undoubtedly produce a large crop when all things are favorable; but it is an annual plant, must be sown every spring, and subjects the farmer to the cost of plowing and reseeding annually. Hope you will give it a thorough trial, and give us the results.

WORTH KNOWING.—The great difficulty of getting horses from a stable where surrounding buildings are in a state of conflagration is well known, and that, in consequence of such difficulty, arising from the animal's dread of stirring from the scene of destruction, many horses have perished in the flames. A gentleman, whose

horses had been in great peril from such a cause, having in vain tried to save them, hit upon the experiment of having them harnessed as though they were going to their usual work, when to his astonishment, they were led from the stable without difficulty.—*Spirit of the Times.*

A much more easy and expeditious way of getting a horse out of a burning building, or when near one, is to take off your coat, throw it over his head and shut out the sight of all objects. He will then usually follow your lead anywhere.

For the New England Farmer.

THE POTATO BLIGHT AND ROT IS CAUSED BY INSECTS.

Mr. Editor:—I answered Mr. Goldsbury through your columns, May 12th, at his own request. His "seven reasons," of March 3d, I refuted by actually showing, attested by reliable certificates, (as published in *N. E. Farmer*, May 12th,) that insects cause the potato blight and rot. He attempts a reply, June 2d, denying in vague generalities the facts which I have placed before your readers. If he will not admit, and does not refute the facts stated in the authorities, it is useless to argue this question with him I have frankly given him the authorities which establish beyond question the true cause of this malady. It is traced to microscopic insects, subsisting suctorially in their larva age upon the roots. Mr. Goldsbury admits his ignorance about microscopic research into this subject, never having "looked through the microscopic glasses." Thus ignorant, who will admit his hypothetical theories, unsupported by one single authority or certificate? If he is right, why don't he give, frankly, the names of the "seventeen plain, shrewd, common sense Yankee farmers," who know so much, and have searched microscopically into the entomological and botanical condition of the potato? I respectfully ask him for their names, and certificates of their investigations. Mr. Goldsbury and your readers have "Yankee shrewdness and common sense" enough to understand, that facts are better and more reliable than "logic;" therefore, I gave Mr. Goldsbury no "logical answer," because I produced ocular facts to refute his hypothesis and theories;—facts attested to by the highest authority in the nation.

Baltimore, June 5, 1860. Lyman Reed.

Landscape and Ornamental Gardening.—Our old friend and correspondent, R. M. Copeland, Esq., has associated himself with Mr. C. W. Folsom, to furnish plans for the laying out and improvement of cemeteries, public squares, pleasure grounds, farms and gardens, and also for the construction of buildings connected with agriculture, horticulture and general improvement. Mr. Folsom will give his attention to all branches of civil engineering, such as the laying out of roads, surveys for water works, railroads, &c., &c. They are skillful, competent and reliable gentlemen, and are able to connect with the principles which they well understand, a decided good taste.

For the New England Farmer.

EVERY MAN A KING.

BY R. H. TEWKSBURY.

New England! land of labor,
Stalwart forms and iron wills!
How the wanderer's fondest memories
Linger 'mong thy granite hills;
And, mapped upon the vision
Of thy absent sons who stray,
Lie the outlines of thy valleys—
There the mirrored memories play;
Memories of the land that bore them,
What a wealth of joy they bring—
Land of maidens more than queenly,
Land of men, each one a king!

There are honors won in battle,
Mingling blood of friends and foes,
And a haughty pride that fattens,
On a suffering brother's woes:
Ye are nobler honors winning,
New England's sons of toil!
'Mong the workshops' clanging forges,
Or the boulders of the soil.
Though bloody deeds ye boast not,
Nor the battle trophies bring,
Every workman is a monarch,
Every toiling son a king.

Thrones there are, with gold encircled,
Radiant in a wreath of gems!
Robes with many a diamond sparkling
Fringed with burning sapphire hems!
Thrones there are, O, fair New England!
In thy boundaries not a few,
Whence a thousand rulers give us
Blessings like the heavenly dew.
Where the plowman turns the furrow,
Where the beaten anvils ring,
In the modest robes of labor
Stands a true and royal king.

Plowing through the waves of ocean,
Breasting every rolling stream;
Rattling through the vine-clad valleys,
Chaining e'en the lightning's gleam;
Riding high in air above us,
Gliding o'er the rolling sea,
Heralds from the court of labor
Hail the rulers of the free,
Whose maces are sledge hammers,
Whose praise their anvils ring,
Hard and sinewy modern monarchs—
Every one a more than king.

Every click of workman's hammer
On the red and yielding steel,
Every puff of lab'ring engine
Where the thundering car-trains wheel,
Every dash of rolling paddles
In the waters of the sea,
Echo far and wide the anthem—
We are rulers of the free!
Every blow of grim old forger
The song of triumph rings,
We have every one a kingdom!
And we dwell where all are kings.

Lawrence, Mass., May 30, 1860.

Wonderful Instinct of a Cat. On Thursday of last week, Capt. Elijah Crocker, of this village, sent a cat and two of her kittens to Boston, by the sloop S. P. Cole, Capt. Washington Farris. The cat and kittens were taken on board Capt. Crocker's vessel, the ship Ashburton, soon to sail for Calcutta. But on Thursday morning it was

found that she had escaped; and on Saturday night, at 10 o'clock, she arrived home, at the residence of Mr. Ebenezer Smith, of this village. This is indeed a wonderful illustration of the instinct of the cat.—*Barnstable Patriot.*

Well done, Major Phinney! If you had told this story about a *fish*, it would have been all nat'ral enough, but such a whopper about cats beats all nater. Well, we can't afford to let you "go up to the head" until we have told *our* story.

Mr. Charles Blake put a six months' old kitten into a basket one Saturday morning, in the town of Newton, *seven* miles from Boston, put a cloth covering over the basket, and tied it down. He then carried the basket to the cars, put it under his seat, and when he arrived at the Station house in Boston, opposite the U. S. Hotel, took the basket in his hand and carried it entirely across the city to Quincy Hall, his place of business. There he let the little prisoner out, and she was seen about the hall during the day, but on Monday morning on going down to breakfast he found his little friend back to Newton, all hale and hearty, and ready for her cup of milk!! She had escaped from the hall, traversed the entire width of the city and seven miles through the country, to the place of her birth!! Thank you for that hat, Major!

For the New England Farmer.

CATTLE DISEASE.

Messrs. Editors:—Pleuro-pneumonia is rather an uncouth phrase to be delivered by children born of Anglo-Saxon parents who had no hereditary Greek in their compositions. Pleuro is derived from the Greek word pleura, which signifies the side, and pneumonia, from Pneumon, the Greek word for lungs. There is a membrane which lines the inside of the chest and covers the ribs and then extends to and envelops the lungs. Mankind, cattle and other animals are provided with this membrane. When inflammation seizes the membrane that lines the ribs it is called a pleurisy, or inflammation in the side, which causes pain in the side, and when it seizes both the membrane that covers the lungs and that which lines the ribs, the disease is called the pleuro-pneumonia, or pleurisy and lung fever.

Names go for what they are worth, but disease is a reality. From analogy, comparing the cattle distemper with the pleuro-pneumonia which afflicts mankind, we might suppose that it commenced with a degree of inflammation which continues for a short time, and then degenerates to a morbid and putrid state of the lungs, which terminates the animal's life. Malignant diseases, among mankind, whether epidemic or from contagion, are limited. When the plague, yellow fever, small pox, or any other desolating disease has prevailed for a season, it gradually spends it virus and becomes more mild, so that physicians are often led to suppose that they have discovered some more effectual mode of treatment than at the beginning of the disease. This process of atmospheric purification continues till every particle of the offending virus is absorbed or expelled from the atmosphere, and the distemper which has caused so much terror and destruction becomes completely extinct. Judging from analogy, we may suppose that after a satisfactory number of cattle have been sacrificed to propitiate the wrath of the demon pleuro-pneumonia, that the atmosphere will become purified of all noxious influences, so fatal to cattle, and the plague will be stayed.

Silas Brown.

North Wilmington, June, 1860.

POSTS INVERTED.

"W. H." asks our opinion on the practice of inverting posts. We have full confidence in its usefulness. The conditions necessary to rapid decay, are to be learned at the earth collar of the post; there where the moisture of the soil and the atmosphere can exercise their joint action, posts first rot, while the part above, as well as below this point, remains sound for a much longer period.

When the style of wood is such as to permit the post being turned upside down, the rotting will be much slower, particularly if the butt be cut angular or shelving, so as to pass off water falling upon it. When the post is placed in the same position in which it grew, viz., butt down, the capillary tubes carry up moisture from the soil, and thus it is always moist at or near the earth collar; when on the contrary the position is reversed, this capillary action does not occur, and with such there will be slower decay.

There are other methods, however, of preserving posts, all of which, by the by, may be added to the inverting practice. Thus, with the inverting practice, a hole may be bored in the top, a small amount of corrosive sublimate placed in and plugged; this will disseminate itself, passing downward through the post, and thus kyanizing the wood by rendering the sap insoluble. The portion of post intended to be placed in the ground, may be stood in a vessel containing a dilute solution of corrosive sublimate, and be kyanized. This operation, however, although it renders all woods as lasting as locust itself, is expensive, and, therefore, can only be appealed to in the vicinity of chemical works, where corrosive sublimate may be had at moderate prices.

The lower portion of posts may be coated with coal tar, or rosin oil, and then slowly carbonized, by setting fire to this coating. This treatment causes them to last a much longer time. The ordinary gas tar is frequently used for this purpose.

Immersion in a solution of common copperas, chloride of zinc, and many other salts, has been used with advantage.

It is quite strange that while farmers study economy, even beyond their truest interest, in the purchase of fertilizing materials, labor-saving tools, etc., still they will fence their farms with chestnut, without the slightest preparation, repeating this expensive operation, as far as the posts are concerned, at least as often as once in fourteen years; and this in the face of the fact that with the means we have named, much greater economy may be availed of.

It has been asserted that the cost of the fences in the United States, is greater than the interest

on the national debt of Great Britain; we believe this, and therefore call the attention of our readers to the necessity for economy in fencing. In many parts of the country hedges are used with advantage, but in some districts the land is too valuable to be thus used, and in such locality economy in fencing becomes important. — *Working Farmer.*

For the New England Farmer.

THE CATTLE DISEASE AND THE LEGISLATURE.

Mr. Editor:—Is it not strange that the members of the Legislature—the men selected by the people to represent them—to act for them—to promote their interests—the picked men of the State, should conspire to reduce the State to the verge of bankruptcy, to beggar their constituents, to slaughter whole herds of the finest cattle in the Commonwealth, to destroy the cattle upon a thousand hills, to ruin the trade in beef and milk and butter and cheese, to interrupt the business of farming all over the Commonwealth, to ruin the drovers and butchers, and to discourage every department of agriculture—and all for what? Why, to make themselves popular! To gratify a few white-handkerchief gentlemen who have got frightened because some cows have sickened and died? And in addition to all the above accumulated evils which they have inflicted upon the people, they have levied a tax upon themselves and their constituents of $100,000! to pay a set of noddies for doing all this mischief. They have allowed themselves to be convinced that the disease among the cattle is contagious, notwithstanding certain venerable doctors in Boston do not think there is sufficient proof of the fact! Wonderful! Surely the Legislature will no longer claim to be the assembled wisdom of the Commonwealth. What can be the motive for imposing such an oppressive tax upon the poor people? Is the Legislature trying to ape the monarchical Governments of England, Holland, Belgium and Prussia, who have expended some millions of dollars to extirpate the same disease? Have they been creating offices to reward political partisans? What can their motive be? Because the Governor called them together, and gave them an opportunity to vote themselves $50 apiece, did each member feel bound to do $50 worth of mischief?

But seriously, has the Legislature reduced the Commonwealth to the verge of bankruptcy? Has it done irremediable injury to the best interests of the State? Has the Legislature injured Mr. Chenery to the amount of $15,000? Has it converted the green pastures of the Commonwealth into a great slaughter-yard?

It has simply recognized existing facts, and put the people of the State upon their guard against the prevalence of a great calamity, and furnished them with the means of protecting themselves and their interests. If ever men came together with an earnest desire to ascertain the truth, and do their duty, the members of the Legislature came together with that desire, and devoted themselves faithfully to their work. It is easy to say that the commissioners have destroyed 640 cattle, and the Legislature has laid a tax of $100,000. These numbers sound large to those of us who are not accustomed to deal in large sums, and men who like to find fault, and who are addicted to making speeches, can ring the changes upon them, until they become a great affair.

But, Mr. Editor, let us look at a few figures in another relation, and perhaps it may tend to allay our fears. I have before me five numbers of the *New England Farmer.* I take them up and look at the number of beeves reported at Cambridge and Brighton markets for each week, and I find reported on

May 12	1700
" 26	1500
June 2	1650
" 9	1282
" 16	1125

Here are the reports for five weeks in May and June of the present year. The whole number amounts to 7,257. This divided by 5 gives 1451 as the average number for each of these five weeks. Now, if we suppose each of these beeves to weigh 6 cwt., and to be worth $6 per cwt., which is certainly a very low estimate, both as to quantity and price, the whole value will be $52,236. We notice that the sales have diminished about one-third during those five weeks. But we suppose this always occurs more or less at this season of the year. Veal is plenty and lambs are coming into market. The stall-fed cattle are mostly used up, and cattle are not quite ready to come in from the pastures, and green vegetables are in the market. But we notice especially the fact that the number of cattle needed for the market of Boston and vicinity is 1451 per week, even for this season of the year. A reference to the reports for the autumn and winter will, doubtless, show that the consumption is more than 2000 weekly. The Commissioners have killed 640 cattle, less than half a week's supply for the Boston market. We notice another fact; the value of the cattle slaughtered by the butchers of this neighborhood weekly is more than $52,000, or more than half the tax of $100,000. Now we suppose the sale has diminished in other parts of the State as much as at the Boston markets. If so, it cannot be doubted that more than twice as many cattle have been saved already, as the Commissioners have destroyed, and as the $100,000 would hardly pay for two weeks supply of beef, we think this sum has been nearly saved already by the diminished consumption of beef, and will be saved more than twice over during the summer, so that we do not see that we have any cause of alarm lest the stock should run out, or the State be made bankrupt.

There have been fewer cattle driven to market from this State, thus far this season, and will be through the summer, than if there had been no disease among us, and there can be no doubt that there will be more cattle in the State, at the end of the season, than if the Commissioners had not killed a single animal, to say nothing of the numbers that will be saved from contagion through their efforts.

No more of the tax will be expended than may be needed, and we think there is reason to hope that not more than half the sum in addition to the $10,000 previously appropriated, will be required. But the Legislature acted wisely in providing ample means, so that the Commissioners may be able to carry out all the measures which

they shall judge necessary to eradicate the disease. They should not be crippled in their efforts to accomplish the beneficent work in which they are engaged.

The price of beef is lower than it has been for some years, and probably will be so through the season, and this is owing in part to the panic occasioned by the disease.

The drovers, generally a very shrewd class of men, purchased cattle in the spring, and turned them into the pastures. They now fear they shall not get the prices in the autumn which they anticipated. Is not this the chief source of the hue and cry which has been raised against the Commissioners and the Legislature? There are men in the State, as experience has already shown, who are willing to get diseased cattle, or cattle which have been exposed to disease, off their own hands, without regard to consequences—such men cry out against any laws that restrain their movements. But if the drovers should not make as large a profit as they anticipated, the consumers of beef will have no reason to complain.

Should the price of beef be less than usual, the people of this State will not be the principal losers, for at least seven-eighths of the beef brought to our market comes from other States.

Yours, S.

For the New England Farmer.

SPAYED COWS.

About the first of May, 1859, a gentleman at Newburyport had two cows spayed; one a fine Durham cow, four years old, six weeks after dropping her second calf; the other, an old native cow, eleven years old, but a good milker. In October, he had a third cow spayed. In April, 1860, a fourth, and the seventh of the present month, a fifth. The two first, which were altered more than thirteen months ago, are now in good condition. The young cow is tolerable beef. They give as much milk as they did a year ago. The milk is very rich, like the milk of farrow cows. The two cows that were altered thirteen months ago, together with the one spayed on the first of April, this year, give regularly thirty quarts of milk, every day. The cow that was altered in October, has been troubled this spring with garget, but is now getting well of it. The lumps in the udder are disappearing, and she will doubtless soon be in good condition. Their owner says he has his milk fountain guaged; he knows how much he will have daily, and his milk is better than ever before. He says he cannot afford to keep a good cow without having her altered. There has been no difficulty in the operation, and no injurious effect has followed in either case. The wounds all healed well, and the cows soon returned to a full flow of milk. J. REYNOLDS.

"TIRED AND SICK OF A MERCANTILE LIFE."—We could be of more service to our correspondent, "*A Subscriber*,"—who is "sick and tired of a mercantile life," and who is determined to try farming,—by a personal interview with him, than by replying to his note through the *Farmer*. Indeed, it is not in our power to reply in writing, short of making a large pamphlet, or a book.

For the New England Farmer.

RAISING THE PEACOCK.

MR. EDITOR:—In the monthly *Farmer* for June, "Oak Hill" would like information on the raising of the peacock. If he would like my way of telling him, it shall be very much at his service.

In the first place, the peacock does not generally care much about more than one mate, though he will sometimes play the Mormon. They breed at two years old, at which time the cock has a small tail; at three years he is equipped in full.

The hen, a modest looking bird, lays, at two years' old, from three to five large eggs; she sets on them five weeks, at which time they will come forth perfectly fledged, and they generally go to roost the first night. The hen lays her eggs early in June—so, by the first or second week in July, she is off with her young, which she is pretty sure to bring out and bring up. There used to be a fabulous story of the cock; that he would kill the young if he found them before they had the tuft on their heads. The truth is enough to tell of him, and about as much as he can bear. And for the information of "Oak Hill," I will enumerate a few facts. He will not be confined; he will perch on the top of your highest chimney, or the ridge of your highest building, and give forth such screams, that any one who is fond of such things, will be induced to exclaim, delectable! If you have a hen with small chickens, he is sure to follow up and survey her brood with the most apparent inquisitiveness, though he never appears to hurt them at all, although extremely annoying to her. He appears to be determined on the mastery of the feathered family, which he generally effects. The young hen seldom lays more than three eggs, but as she grows older, she lays more, and finally comes up to nine or ten. They are easily raised, require little or no care, and are excellent for the table. ALF. BAYLIES.

Taunton, June, 1860.

SHOEING HENS.

"A friend of ours boarding in the country found his hostess one morning busily engaged in making numerous small woolen bags, of singular shape. Upon inquiry he was informed that they were shoes for hens, to prevent them from scratching. The lady stated that it had been her practice for years to shoe her hens, and save her garden. These "shoes," (I believe they are not patented,) were of woolen, made somewhat of the shape of a fowl's foot with ease, after which it is closed with a needle and sewed tightly on, extending about an inch up the leg. Our friend observed that some of the biddies, possibly conceited with their new honors, appeared to tread as though walking on eggs—particularly was this the case when from the width of the shoe one would conceive that their toes might be a little pinched."

This is not a bad idea. We have seen hens shod before, and with good results; it is not necessary, however, to make a regular *shoe* for them; even a piece of cloth embracing their foot and secured to the leg, the bag being large enough to allow their toes to expand in it, will answer the purpose very well. By such an appliance, henyards and tight fences are unnecessary, the hens

are allowed their liberty all summer, and will lay better for it, and even the garden and field will be kept clean from many worms, bugs, flies and other vermin that injure vegetation. But for their *scratching*, hens do little harm and much *good* on cultivated grounds.—*Rural Intelligencer.*

For the New England Farmer.

HOW FARMING WAS MADE PLEASANT AND PROFITABLE,

AND THE BOYS THOUGHT IT RESPECTABLE.

The recent discussion of the subject in the Legislative Agricultural Society, and the attempts to introduce agricultural education as a branch of common school education, which seems to me as proper as instruction in the trade of a carpenter or mason, in a common public school, has led me, who am at least not a known talker, to pen a few lines for the *Farmer*.

Many years ago, in a remote country village, in a neighboring State, I knew two gentlemen of good education and public spirit. One, the skilful village physician, the other a tanner. The doctor owned and lived on a large farm, which was carried on by means of hired help mostly. The other had only the usual half-acre attached to country residences for the purpose of a garden. Both were zealous and active members and officers of the county agricultural society. In each of these families was a boy, enjoying the ordinary six months schooling of a country village, where they learned to read, to spell, arithmetic, geography and grammar. The doctor's son, at other times, was accustomed to work on the farm; he was allowed to own and dispose of a sheep or two, or now and then a colt, or to raise a heifer, or pair of steers, his own possession. A small piece of land was allowed him to experiment upon, and to crop as he chose, and the proceeds to be his own. The best agricultural paper of that day was taken in the family, or by the boy. He was encouraged by a wise father, and advised in his planting operations, and not laughed at, if there was a failure; and the proceeds of whatever he had been taught to consider his own, were cheerfully and promptly allowed him, either selling his crops and cattle himself, or being paid their market value, by the father. Quite an ingeniously constructed cheese-press was made by him, for which his mother paid him the most flattering compliment of using for the cheese of a considerable dairy. Afterwards, like most New England boys, desiring a better education than common schools afforded, he fitted for, entered and graduated with high honors, at a New England college. Being little inclined to professional life, he went back to the farm, and is one of the most successful practical farmers and stock-raisers of his county. Nor does he disuse his literary pursuits and advantages; occasionally, during the leisure portion of the year, at the solicitation of his less informed neighbors, he teaches school, which affords their children an opportunity to obtain an education at a much better school than ordinarily accessible to them. Occasionally he gives a lecture, or an agricultural address, and diligently through the journals of his State, instructs his brother farmers from his practical experience. Such a man elevates the pursuit he has chosen, elevates his fellows by making more certain the results and avails of agricultural labor. Query: Cannot a good many farmers of this Commonwealth in like manner grow farmers on their farms, and find it a most profitable crop?

In the rather miscellaneous library of the other gentleman, between Shakspeare and Bunyan's Pilgrim's Progress, stood Fessenden's New England Gardener, and his boy, in addition to a thorough reading of that, was made to weed the garden, sometimes to sow it, and when he was larger, was made responsible for its whole care and ordering, whereby he came to love flowers and fruits, and vegetables, and to know how, and to like to raise them all; and always has retained rather a weakness for "digging in the garden," ever since. Would "botany, and agricultural chemistry, and how to farm," taught in the common school, have better impressed these boys with a love of the earth, and knowledge to make it yield its fruits? Let the boys have good agricultural and horticultural books and papers, for winter reading, a bit of earth to cultivate, and a share in its proceeds, and there will be more successful farmers, fewer idlers, disappointed tradesmen and professional men; and it will go far to answer the question, "How to make farming a pleasure and profit." D.

Boston, February 28, 1860.

THE SHEPHERD'S SABBATH SONG.

This is God's holy day—
Now, one last matin bell I hear,
Now, all is silent, far and near,
As in the fields I stray.

In prayer I bend the knee—
Sweet dread! mysterious whispering sound!
As if unseen ones all around
Were worshipping with me.

The sky their glories ray,—
The stainless heavens, far and near,
Seen opening to my visions clear
This is God's holy day.

From the German of Uhland

For the New England Farmer.

MUSINGS AMONG THE MOUNTAINS OF NEW ENGLAND.

May, charming May, has come and gone, and with it came the singing of birds, the peeping of frogs, the plowman's merry whistle, and the thousand and one happy associations that cluster about the tiller of the soil, to cheer his spirits and make his heart rejoice in the possession of his happy vocation. Foolish is the man who foregoes the sweet comforts of rural life—the associations of myriads of gay songsters that come up annually among the mountains from the muggy South, to warble their little notes of sweet eloquence to the farmer, as he tills these beautiful hill-sides and valleys—to snuff the balmy breezes of the trio of seasons, so richly freighted with the "balm of a thousand flowers"—the sowing and planting—the "merry hay day," the "rich golden harvest"—for a life devoted to the accumulation of wealth alone. Spring is the time for the singing of birds, but we must wait until June for the rose, beautiful rose! the queen of flowers, how beautiful! Has

the rose borrowed its hues of the rainbow, or has the bow kissed the rose, with a blush on its cheek? Meanwhile we wait, the fruit trees are white with incipient fruit, and from the instinct of hope we taste fruit in the blossoms.

Next, and now, is June, sunny, genial, smiling June; the month of the rose and the lily, the emblems of beauty and modesty! The rose, when a bud, a hundred leaves blushing with delight, so nicely folded over its glowing heart that the softest breeze sighing over the green earth might not suspect the secret of its being; a perfect flower, it breathes forth its fragrance upon the morning air, and drinks in its dews, and unfolds its beauty to the great sun of nature that has given it birth. Of the lily, the pure white lily, waving so gracefully upon its slender stem, scattering dust like golden tears from its spotless bosom, when disturbed by the winds, its lofty graces, its lovely simplicity—emblem of purity—sacred by reference—that which is so perfect cannot be described. The most perfect art cannot imitate, nor bear away the rich fragrance that lingers about it. Love, purity, and gentleness are typified in the rose and the lily, but in the material world these graces are looked upon as weaknesses.

Those sweet little flowers that greet us so early in spring, have gone,—the crocus, the violet and their kindred,—gone to rest until another spring. Would that spring were more frequent; but then 'twould be less charming. If it were all springtime, then its beauties would be swallowed up in the monotony of seasons. With bounteous rains God has watered these hills and valleys—all nature smiles in newness of life, and the little babbling brooks are meandering to the waters that span the globe. New England, the mother of the school-house—the guardian of the church, the birth-place of America's great men, whose hills are so beautifully carpeted with nature's magnificent green, with scenery so sublime, so majestic—who does not sigh for a home in New England?

LEWIS S. PIERCE.

East Jaffrey, N. H., June, 1860.

For the New England Farmer.

SEASON, CROPS, FAITH AND PRACTICE.

GENTLEMEN:—For many weeks previous to the first of the present month, a very uncommon drought prevailed in this region, and the prospects of the farmer looked dubious indeed; all nature seemed to wear a gloomy aspect; the merry whistle of the husbandman was seldom heard, while an expression of fearful foreboding was visible in their countenances, as they toiled with the plow and the hoe; but their troubles were not to end here, for in the midst of all this, while our hearts were still sad, and we were anticipating a very meagre reward for our toils, news reached us, that the cattle disease was advancing upon us at a rapid rate, but, luckily, we were more frightened than hurt. The town authorities have acted promptly in the matter, and we think we have but very little to fear in that direction.

The refreshing rains that have fallen the past few weeks, have changed the face of nature very much; vegetation is advancing at a rapid rate, and the prospect for an abundant crop of all kinds with the exception of hay, never was better; hay, we think, must be very light in many places. There is a prospect of an abundance of fruit of all kinds, and the farmers are beginning to take courage, showing a disposition to work while the day lasts; they read their Bible and *New England Farmer* when night cometh, and leave the future with Him who ruleth all things well.

The Bible shows us how and where to put our trust—the *New England Farmer* teaches us how to till the land, and if we carry out the instructions of the two, and let the flying reports in regard to the cattle disease, &c., go to the four winds where they belong, I think we have but little to fear in the future. Our farmers, as a general thing, spend too much time talking over flying reports, they give too much credence to the thousand and one rumors afloat in the world in regard to the farming interest, which has a tendency to injure the different agricultural pursuits more than anything else we have to encounter. *Dig more*, and *talk less*, is the advice of an old farmer, and constant reader of the *New England Farmer*.

W. C. A. CLINTON.

Claremont, N. H., June, 1860.

For the New England Farmer.

IN-DOOR FARMING.

MR. EDITOR:—Much is being said in your paper about the profits and pleasures of farming, *out of doors*, but nothing is said of the in-door labor, where the most of the hard toil without remuneration is found. It is healthy and pleasant work, when farmers get where they can have sufficient help in-doors, as well as out.

But with some exceptions, the farmer's wife is, as a general thing, the most hard-working class there is; she must be watchful, and never tiring, for if she is not able to perform to-day's labor, to-day, to-morrow she has got a double task to perform; to be sure, she is not driven to it with the lash, but the spur of necessity drives her on, and with the cares and labors of in-doors farming, she often has the cares of a large family. Farming is not, as a general thing, found to be sufficiently remunerative to allow of hiring in-doors work, so that all the labor and care must come upon the farmer's wife. If she has a large family, and the prospect good for more, still she must make and mend, bake and brew, wash and scour, churn and make cheese, milk and feed hogs, &c. Because she knows, if she hires, the family wants must be curtailed enough to meet the expense of hiring, when, with all her planning and hard work, she can get scarcely enough, for the husbandman is too apt to think that the products of the farm are sufficient, and all else are superfluities. So the wife must wait for the hens to lay, for from that source often comes all the change that falls to her share!

Please insert this in your columns, for if it does not meet with the views of some of your correspondents it may meet the case of their wives.

A FARMER'S WIFE.

Warner, N. H., 1860.

PLANTS FOUND IN NEW BEDFORD.—We have before us "A Catalogue of the Plants found in New Bedford and its Vicinity, arranged accord-

ing to the season of their Flowering. By E. W. Hervey." Such a publication will lead to a better knowledge of the indigenous and beautiful plants that grow about us. We shall find it quite useful in our labors. The author will please accept our thanks for the copy.

AMERICAN POMOLOGICAL SOCIETY.

The eighth session of this institution will be held in the city of Philadelphia, commencing on the 11th of September next, at 10 o'clock, A. M., and will be continued for several days.

This society, the first national institution for the promotion of pomological science, was organized in the year 1848. Its sessions have brought together the most distinguished cultivators of our country; its transactions have embodied their various researches and ripest experience, and its catalogue of fruits has become the acknowledged standard of American pomology.

Its example has created a general taste for this science, inspired pomologists with greater zeal, and called into existence many kindred associations. Its progress has been remarkable and gratifying, but it still has a great work to perform. Its general catalogue should, from time to time, be enlarged and perfected, and local catalogues formed, embracing the fruits adapted to each State and Territory of the Union. The last of these suggestions was made by the chairman of the general fruit committee, at the seventh session of the society, in the year 1858. This has been carefully considered, and is deemed worthy of special attention. It is, therefore, earnestly recommended that each State Pomological, Horticultural, or Agricultural Society, charge its fruit committee with the duty of collecting information, and presenting the same, with descriptive lists of fruits adapted to their location.

The importance of this subject, and the increasing value of the fruit crop of the United States, call for a prompt and cordial response to this request,—for a careful preparation of said list, and for a full and able representation, at the approaching session, from all parts of the country.

The various State committees of this society are expected to submit accurate and full reports of the condition and progress of fruit culture, within their limits, together with definite answers to each of the following questions. These reports, it is desirable, should be forwarded to the chairman of the general fruit committee, Hon. Samuel Walker, Roxbury, Mass., if possible, as early as the 1st of September, or to Thomas W. Field, Esq., Secretary, Brooklyn, New York.

What *six*, *twelve* and *twenty* varieties of the apple are best adapted to an orchard of *one hundred* trees for family use,—and how many of each sort should it contain? What varieties, and how many of each, are best for an orchard of *one thousand* trees, designed to bear fruit for the market?

What *six* and *twelve* varieties of the pear are best for family use on the pear stock? What varieties on the quince stock? What varieties, and now many of each of these, are best adapted to a pear orchard of *one hundred* or of *one thousand* trees?

What are the *six* and *twelve* best varieties of the peach? What are the best varieties, and how many of each are best adapted to a peach orchard of *one hundred* or of *one thousand* trees?

Answers to these questions should be made from reliable experience, and with reference to the proximity or remoteness of the market.

Held, as this convention will be, in a city easily accessible from all parts of the country, it is anticipated that the coming session will be one of the most useful the society has ever held. Societies, therefore, in every State and Territory of the Union, and the Provinces of British America, are requested to send such number of delegates as they may choose to elect. Fruit-growers, nursery-men, and all others interested in the art of pomology, are invited to be present—to become members, and to take part in the deliberations of the convention.

In order to increase as much as possible the interest of the occasion, members and delegates are requested to forward for exhibition as large collections of fruit as practicable, including specimens of all the rare and valuable varieties grown in their respective districts, and esteemed worthy of notice; also, papers descriptive of their mode of cultivation—of diseases and insects injurious to vegetation—of remedies for the same, and to communicate whatever may aid in promoting the objects of the meeting. Each contributor is requested to make out a complete list of his contributions, and present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as soon as practicable after its organization.

Societies will please transmit to the Secretary, at an early day, a list of the delegates they have appointed.

Gentlemen desirous of becoming members can remit the admission fee to Thomas P. James, Esq., Treasurer, Philadelphia, who will furnish them with the transactions of the society. Life-Membership, $20; Biennial, $2.

Packages of fruits may be addressed to Thos. P. James, 630 Market Street, Philadelphia.

Marshall P. Wilder, *President.*

For the New England Farmer.

TURKEYS.

Gov. Brown:—My little boy wants me to put into the *Farmer* an account of the wonderful feats of our turkeys, and accordingly I submit the facts to your disposal. We have fed white turkeys for several years, the color, like the Caucasian complexion, being transmitted by descent. Sometimes in the autumn a flock of them on the hill-side look like a shepherd's charge. Well, now for the wonder. One of our turkeys laid fifteen eggs and went to setting. The eggs in the nest still went on increasing in number, so that we supposed another turkey laid to her, and took care to shut her out of the barn. Eggs, however, continued to be laid, till they reached about thirty, when the turkey hatched the fifteen eggs she began to set with. Meanwhile it turned out that the other turkey had a nest of her own in another place, and she had gone to setting; so we were forced to the conclusion that the setting turkey must have kept on laying. This was fully verified after hatching, for she has still kept on laying, and has a nest where she may soon be expected to set again.

What, then, some reader may inquire, will become of her little turkeys? Why, Mr. Gobbler will look after them and brood them at night. He is a very tender parent, I can tell you. Last year a little turkey got lamed, and had much difficulty in getting over walls with the others. The mother with the ninety and nine would move on despite his cries, but the old gobbler would fly back and forth, never deserting the lost lamb till some place was found where he could get over.

Turkeys are easy to raise if you are careful for the first five or six weeks. They should then have eggs boiled hard and chopped fine and soaked in milk, afterwards some dough. They must be kept in during storms, and while the dew is on, during this early period. Afterwards the summer flies and grasshoppers will relieve you from feeding, and furnish the turkeys sumptuous repasts. They are useful in clearing the fields of insects. * They are sad strollers, constantly perambulating, like the restless spirits who sing,

"We'll wander this wide world over,
And then to another we'll go."

But if you have ample space, they are a profitable fowl to raise. F.

Wayland, 1860.

PLUM CULTURE.

BY PRUNUS GAGE.

There is no good reason why we should not have good crops of plums. The most difficult enemy to be conquered is the curculio, and there is evidence during the past season that this insect could be beaten from the field if we only go at him with a determination to "carry the war to extremeties, and give no quarter." It is not right that on our clay soils we should be obliged to give up this delicious fruit; and the full crops secured by S. O. Knapp, of Jackson, the present year, prove that plums can be grown. His trees the past autumn were very fully laden with very luscious fruit. But he attended to the curculio at the proper season. His plan was the sheet and mallet, every morning. Some of his trees had been paved around for a few feet from the tree, and he observed that the curculio did not work so freely in the branches over the pavement as they did where they were over the ground. Many try the sheet and mallet, but leave it off before the season is over. They don't stick to it. Others let their poultry attempt the work, but the poultry can only destroy a part, from the fact that the curculio is a cunning insect, and soon buries itself out of the reach of all kinds of barn-yard fowls.

That a crop of plums is one of the most profitable known there is no question. The point to be come at, is how to raise them. The soil in every case should contain clay, or be a somewhat stiff loam, and in choosing a location, the yard should be by itself, so that it may be separated or fenced in whenever it is deemed necessary. A yard a hundred feet square will afford room for about forty trees, set about fourteen or fifteen feet apart in the rows, say seven rows of six trees in each row. The ground should be well tile-drained and should be trench plowed, before the trees are set, and then the following seven varieties, a row of each kind being grown, may be selected, viz: the Imperial Gage, the Jefferson, Bolmar Washington, McLaughlin's, Coe's Golden Drop, Reine Claude de Bevay, Blue Imperatrice.—The soil in the plum yard should never be permitted to grow grass or any other crop whatever, especially after the trees begin to fruit, or before, unless absolutely necessary, then only such crops as turnips, parsnips, carrots or potatoes. No corn or grain should ever be permitted amongst fruit trees of any kind.

After the trees have matured so that fruit is set from the blossoms each year, then the ground should be pulverized and *rolled* as solid as possible each spring before the season for the curculio. During the curculio season, we would again roll it once a week, and turn in the poultry, especially broods of ducks, to devour all the insects which might be found troublesome to the fruit. Besides this treatment the trees should be shaken every morning to dislodge the curculios, so that they might come within the reach of poultry, and be destroyed. By this system it is claimed, first, that the plowing turns down to a great depth the insect, which has just reached the surface and is ready to commence operations with the arrival of the season; second, that the rolling consolidates the surface, and makes it more difficult to work his passage out, and presents a smooth surface, so that should any of the larva fall from the tree, they do not so readily find crannies and nooks into which they can crawl and hide from the entomological researches of the ornithological tribes; third, the jarring of the trees should be steadily followed up, because, if any insects do ascend to attack the fruit, the only plan to save the year's fruit is to attend to their destruction at the proper time, and on a rolled surface they are as easily destroyed either by hand or by poultry, as though they were on a white sheet.

In addition to this treatment, after the curculio season is over, the yard should be topdressed with half a bushel of salt, and a couple of bushels of air-slaked lime, with a good coating of marsh muck compost late in the fall.

With this treatment a crop of plums may be raised as easily as a crop of cherries, and every tree in the course of three or four years will easily yield a profit of from five to ten dollars for every one invested. There are no difficulties in the plum culture that cannot be conquered, if we only use the means which common sense points out as necessary to follow. But it will not do to try for one season, and imagine that all further work or care is to be dispensed with. The work must be performed every season, if we would have a crop every year; just bear that in mind.—*Michigan Farmer.*

ONE BRICK WRONG.

Workmen were lately building a large brick tower, which was to be carried up very high. The architect and the foreman both charged the masons to lay each brick with the greatest exactness, especially the first course, which were to sustain the rest. However, in laying a corner, by accident or carelessness, one brick was set a very little out of line. The work went on without its being noticed, but as each course of bricks was kept in a line with those already laid, the tower was not put up exactly straight, and the highe

they built the more insecure it became. One day, when the tower had been carried up about fifty feet, there was heard a tremendous crash. The building had fallen, burying the men in the ruins. All the previous work was lost, the materials wasted, and worse still, valuable lives were sacrificed, and all from *one brick laid wrong* at the start. The workman at fault in this matter little knew how much mischief he was making for the future. Do *you* ever think what ruin may come of *one bad habit*, one brick laid wrong, while you are now building a character for life? Remember, in youth the foundation is laid. See to it that all is kept *straight*.

PRESERVING SHINGLES ON ROOFS.

The following article we copy from the *Rural Intelligencer*, as worthy of attention by those who desire to preserve the roofs of their habitations and buildings:

"Some paint roof-shingles after they are laid. This makes them rot sooner than they otherwise would. Some paint the courses as they are laid; this is a great preservative, if each shingle is painted the length of three courses. But about as sure a way to preserve shingles, and that with little or no expense, is a mode recommended in a letter to us by Hon. David Hunter, of Clinton, on the 23d of February last. We republish so much of his letter as relates to this subject, in hopes that it may be of service to many of our readers:

"'There is one thing more that nearly all people know, if they would only attend to it: that is, to sprinkle slaked lime on the roofs of their buildings in rainy days. Put it on considerably thick, so as to make the roof look white, and you will never be troubled with moss; and if the shingles are covered ever so thick with moss, by putting the lime on twice, it will take all the moss off, and leave the roof white and clean, and will look almost as well as if it had been painted. It ought to be done once a year, and, in my opinion, the shingles will last almost twice as long as they will to let the roof all grow over to moss. I tried it on the back side of my house, ten years ago, when the shingles were all covered over with moss, and they appeared to be nearly rotten. I gave the roof a heavy coat of lime, and have followed it nearly every year since then, and the roof is better now than it was then; and, to all appearance, if I follow my hand, it will last ten or fifteen years longer. The shingles have been on the roof over thirty years. There is no more risk about sparks catching on the roof than on a newly shingled roof. Those that do not have lime near by, can use good strong wood ashes, and these will answer a very good purpose to the same end.'"

TOBACCO.—Gen. John H. Cook, of Virginia, has recently written a pamphlet entitled "Tobacco, the Bane of Virginia Husbandry." He says:

That tobacco is the bane of Virginia husbandry, will be shown under the three following heads:

1st. It requires more labor than any other crop.

2d. It is the most exhausting of all crops; and,

3d. It is a demoralizer, in the broadest sense of the term.

EXTRACTS AND REPLIES.

A QUEER HEIFER.

I have a heifer fifteen months old the 20th of June; her bag began to grow in April so that it attracted my attention. It has increased in size from the first, and about the fifteenth of May I found that her bag contained milk, and concluded she must be with calf, as her bag, too, has till now grown larger. But on the eleventh of June she was in heat for the bull.

I do not milk her for fear of consequences, leaking her milk, &c., hereafter; think her bag might contain a quart of milk or thereabouts. Think she cannot be "springing" bag from natural causes; and as it seems to me a "strange freak," I report the case for wiser heads than mine. Will your readers please notice, (not exclusively the Editor,) and inform me if they know of such instances, and the course pursued.

Manchester, N. H., June, 1860. JAMES WALKER.

REMARKS.—We have a fine cow now, one that we raised on our own farm, that gave an abundance of milk *before* having a calf. We turned her to pasture in April, at two years old, with other heifers. Her bag was then hardly discernible, and of course, "as dry as a charity box." On going to her ten days after, we found her bag very much enlarged, and took away nearly or quite a gallon of milk from it. She continued giving a liberal mess until the middle of September following, when she dropt a fine calf, which we now have, and is one of the handsomest yearling heifers in our knowledge. Young heifers will have their own ways, as well as other folks, but we cannot tell you the why or wherefore!

CATTLE DISEASE IN CONNECTICUT.

The all-absorbing topic of conversation among us at the present time is the cattle disease; and so high does the panic run that there is scarcely a town around where there are not supposed cases of the disease already existing; but probably there is not in reality a case of it this side of the Connecticut river; yet there is great reason to fear that it may at any time break out in many places around us. Several droves have been driven through here, and others are lying back ready to come, all of which are supposed to have been bought in Massachusetts near the infected district.

My nearest neighbor is an exile from Russia, is highly educated, and is teacher of languages in our family boarding-schools. He has also been an officer in the army. He says that in the earlier stages of the disease it can be cured. He is to give a lecture before the farmers' club in this place tomorrow evening upon the subject, and it is supposed that he is well acquainted with the disease and its treatment.

June 10.—The lecture was well attended, and was of such a character as to convince all who heard it that its author, (M. Schmiedeberg,) is well acquainted with the disease in all its stages, and also of its treatment in his native country, he having been a veterinary surgeon in the Prussian army, and two years a student in the medical schools of that country. He has been with us a year, and was known in the county before he came here. He has gained the respect and confidence of all who know him, and it is fully believed that no one in our country is better qualified to treat the disease than he, he having been familiar with its treatment in Germany. T. L. HART.

West Cornwall Ct., June 19, 1860.

HORSE RAKES—MOWING MACHINES.

What is the price, each, of Bradley's and Whitcomb's Horse Rakes, and of Wood's Mowing Machine?

Rockville, June, 1860. J. R. STARK.

REMARKS.—We have made inquiry, and cheerfully answer the questions of our correspondent, but wish to say that *we have no connection with any agricultural warehouse*, and when we answer such inquiries, are obliged to go purposely to get the information.

Bradley's horse rake is $10; Whitcomb's, with

wheels, is $22, and without wheels, $16. Wood's one-horse mower is $70, and the two horse $80. All for sale by Nourse & Co., 34 Merchants' Row, Boston.

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CUT WORMS—COAL ASHES—WOOD ASHES—SQUASHES.

I should like to know if there is any remedy for the cut worm which is so destructive on our New England farms?

Also, if it will be of any advantage to put a top dressing of fine sifted coal ashes on and around potatoes and corn that are planted on new land?

Are wood ashes of any advantage on squashes as a remedy for the squash bug? Any light upon these questions will be thankfully received by G. E. M.

Somerville, June, 1860.

REMARKS.—We are not aware that there is any grand specific for cut worms—they are quite destructive at present, cutting down the young mangolds and cabbages sadly.

Coal ashes are of some value to the corn and potatoes.

Wood ashes, frequently sprinkled upon squashes, will prevent, in some measure, the ravages of the squash bugs. When they have performed that office they are exceedingly valuable in promoting the growth of the plants.

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STUMP PULLER—QUERIES.

I have a piece of land containing about four acres, which has until recently been covered with a heavy growth of pine. The land is somewhat elevated, all but a small piece, which is low and moist. I wish to know if it would be profitable to pull the stumps out and cultivate the land? (*a.*)

What is the price of a stump-puller, and how many men will it take to operate it, and how many stumps can be pulled out in a day? Could one be hired? There is no young growth coming up, and perhaps it would be better to plant it with chestnuts. How should they be planted, and what time of year would be best?

GRANITE STATE READER.

REMARKS.—(*a.*) Some persons would make it profitable and others would not. It depends upon circumstances, such as the possession of manure, skill, &c., and how much other land one has under cultivation.

A good stump puller may be purchased for $50 or $75. Cannot answer your other questions.

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SUPERPHOSPHATE FOR TURNIPS.

I have a piece of land from which I wish to raise a good crop of turnips; will you be kind enough to inform me which of the foreign fertilizers will be best to use for that crop, how much to the acre, and the best way to apply it? The land is light, and not rich.

Templeton, June 27, 1860. SUBSCRIBER.

REMARKS.—Use Coe's or Mapes' Superphosphate of lime, 300 pounds to the acre; sow broadcast and harrow.

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THE AXE IS GROUND.

Having laid aside the little, worn-out grind-stone with wooden shaft that groaned and squeaked so dreadfully, about a year ago, and adopted a good new one, with friction rollers and a treadle so as to be turned by the foot, I have managed to keep the axe in pretty good condition for chopping; it cost $5, it is true, and a day and a half's work to get it hung and properly trimmed down for grinding, but it has nearly or quite paid for itself in the saving of time in putting tools in order. When the scythe was dull, which was often the case in this stony country, *one* could go and grind instead of two, and do the grinding in less than half the time it used to take on the old one, and do it better too. Brother Farmer, don't use the old, hard-faced, worn-out grindstone any longer—get a new one and a good one—you won't be sorry. R. A. D.

Ripton, Vt., June, 1860.

CRANBERRIES.

I wish to inquire through the *Farmer* whether cranberries will grow well or flourish on narrow strips of swampy land, or on the margin of small streams, where the land is wet and swampy, but seldom overflowed with water? A. E. WILSON.

Marlow, N. H., 1860.

REMARKS.—Not on all such places, but on many of them. Dig up the surface, haul on an inch or two of sand or gravel, set the plants within six inches of each other, and keep all grass and weeds out. Try this process on a small scale, and if it succeeds well, enlarge, and set the plants farther apart, and they will cover the ground by spreading.

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SEEDING POTATOES.

I planted two bushels of what is called the black potato, last spring, putting two small pieces in each hill. The land was sward, plowed the fall before, manured in the hill lightly and from the two bushels of seed I got sixty-six bushels of as good, large and sound potatoes as I ever saw. I have tried large potatoes for seed, until I am convinced it is worse than throwing seed away.

THE WHEAT CROP.

On the 9th of April last I sowed one acre of land with one and a half bushels of wheat, and cleaned up in December twenty bushels of good sound wheat. I think the rats carried off one bushel, and that high winds and rains injured it three or four bushels more. I think our farmers can raise as much wheat per acre, as they can anywhere in New England.

Derry, N. H., April, 1859. W. H. W.

REMARKS.—The two or three short articles which follow this happened to get "*under* the copy drawer,"—not under the table—and only came to light to-day. Some of them may be a little out of season, but their appearance now will show that we appreciate the favors of our correspondents. Besides this, they will all be preserved in the monthly *Farmer* for future reference.

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THE WHEAT CROP.

Most of our farmers raise from one to three or four acres; we have generally used ashes mixed with the barn manure, but don't know which is best, to mix the ashes with the manure or put them on separately. I wish you would inform me which is the better way, or whether lime, mixed or otherwise, would be beneficial to a wheat crop. MINOT R. PHILIPS.

Nelson, N. H., April, 1859.

REMARKS.—Sow the ashes on the land just before it is harrowed the last time. Lime may be added in the same way. It is always best, we believe, to use alkaline substances by themselves.

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SEEDING POTATOES.

I was much interested in the remarks of H. Poor, in the last number of the *Farmer*, upon raising potatoes. Last year I purchased one bushel of a choice kind of potatoes to plant, and wishing to make the most of them, I cut off the stem end of the largest potatoes, so as to have one or two eyes; the rest of the potato was cut so as to have two eyes to a piece as nearly as could be cut; the smaller ones were cut once lengthwise. Each kind was planted separately, one piece in a hill. In the fall we dug thirty hills of each kind; the yield was as follows: the seed end 52 lbs., small size, and a great many little ones; from the halves 52¾ lbs., larger size, not so many little ones; the stem end 55½ lbs. very large, nice potatoes and but few little ones.

I never plant small potatoes if I can get large ones. My custom for twenty-five years has been to plant large whole potatoes; but last year I cut them once, applied lime, and put one piece in a hill, with occasionally a row of whole ones. At harvest time, I was satisfied that the yield from the cut seed was the best.

Cabot, Vt., April, 1859. MILTON FISHER.

For the New England Farmer.

SIZE AND USE OF HAY CAPS.

Mr. Editor:—As I disagree with you in the size of hay caps, I will state my reasons why. You say a "hay cap should be two yards square." I prefer one four feet square to any other size to use on hay, and I have tried all sizes, from three-fourths of a yard to two yards square.

My first objection to one two yards square is the cost. Few farmers would think they could have a proper number of caps at the cost of the two yards square. Every man who cuts much hay wants at least one hundred caps. Now one hundred caps a yard square will cost $10; one hundred four feet square will cost $17, and one hundred two yards square will cost from $40 to $50, as there is the sewing besides the cloth. Almost any farmer would think he could spend $10 for caps, while few would think of spending $40.

A hay cap two yards square will measure from corner to corner, across the midst to the end of the loops, three yards. Most folks do not cock up hay in cocks large enough to take so large a cap. The corners would reach to the ground. I think it much the best for the hay to have it put in small cocks, as the hay makes much better, and it is much easier to cock up, open, &c., in small cocks than in large ones.

A cap from a yard to a yard and a third square, if well put on, will keep a cock of hay through a storm so that you cannot tell the hay after it is put in the barn from hay that had not been out in a storm.

The best way to get hay caps is to buy the cloth the width you want it, and tear it up into squares, and put loops in the corners. The sticks should be from eighteen to twenty inches long. I would not let any one hem, paint or varnish mine, if they would do it for nothing.

I make this statement, Mr. Editor, not to argue the subject with you, but to encourage people to get hay caps who would not think they could afford to buy them at a cost that the two yards square would be. I have often felt that every cap that was on a cock of hay through a long storm had paid for itself, just in that one use.

A man that cuts forty or fifty tons of hay wants two hundred caps. Caps properly cared for will last a great many years. I think I have them now in use that I have used for twenty years.

Hollis, N. H., June, 1860. Ed. Emerson.

Remarks.—Excellent, friend Emerson. We are not at all tenacious of our opinion about the size, but recommend to all to try for themselves. As we view it, large caps are no more expensive than small ones, because you will not need so many of them; and then a small cap requires just as many of the operations to put it on as a large one, so that in this particular there is an important gain. Try the cap—if the season is a "catching" one, you will save more than their cost *this year*.

To make Steers hold up their Heads.—Having seen in a former number of the *Rural* an inquiry from "O. W. T." how to make steers hold up their heads while at work, I will give you my own experience and observations in relation to it. In the first place, be very careful that the yoke has the right draught so that it will not choke the steers when they are at work with their heads up. Secondly, do not tire them, as it worries and causes them to droop their heads. Thirdly, when it is desired to stop the steers, make them understand the word whoa; speak quick and distinct, and when they are stopped turn the butt of the whip and tap them under their jaws lightly, until they bring their heads up to the proper place.—*Rural American.*

FERMENTATION OF MANURES.

It would seem from an article in a late number of the *Mark Lane Express*, that although English farmers are as well satisfied that fattening animals is a losing business, as our friend Pinkham is that raising corn don't pay, yet "shed-feeding," or as we should say, stall-feeding, is steadily on the increase there. The editor says, few look upon it as a profitable branch of husbandry; the general bearing of experience goes to prove that the food which is consumed in the "fatting-shed," is seldom paid for in the increased value of the animals by which it is consumed, and yet it is generally considered an essential accompaniment of good management! But instead of asking how long it will take the English farmers to get rich "at this rate," he finds a solution of the apparent mystery in the manure produced. The importance of the proper management of the manure heap is therefore discussed at some length. We copy a paragraph on fermentation, which may have some bearing on the question whether manure does best in barn cellars or in the open air.

Without going into an explanation, which would be tedious to some of our readers and unnecessary to others, we may remind them that during the time the manure is rotting we have great changes taking place in the heap, and the most valuable ingredients, as well as those of little or no importance, alike take part in the fermentation. They change their character, their form, and their properties, according to the circumstances attending their management. We are all well aware, from the light which experimental researches have thrown upon the subject, that the ultimate value of the dung as a fertilizer depends very much upon the product of this fermentation; so much so, indeed, that two lots of manure, originally of the same value when taken from the bullock-shed, may become of very different quality when ready for use upon the land, even when equal care has been shown to avoid loss by drainage. In fact, the difference may be traced entirely to the management of the dung whilst it is rotting. This fermentation is generally allowed to take its own course. All that is done is to avoid loss by drainage, or injury from the fall of water upon it. Valuable as these precautions are, still the latter is capable of being carried so far as to become productive of great loss. It has been very clearly shown that when the manure is fermenting it

should be kept moist, and we may even go beyond this, and say that the more rapid the dung heats the more liberal should be the supply of moisture. If it is not present naturally, then we would recommend its addition to the heap. We are fully convinced of the great difference in the value of manure, according as it has been kept moist—not too wet—or it has been allowed to rot in a dry condition. We feel that upon the production of a good-quality manure much of the profit of shed-feeding depends; and as it has been said of old "that a word to the wise is sufficient for them," so now also is it true of our readers. We trust that the hint we give to watch more closely the management of their manure heaps will not be overlooked.

THE CULTIVATION OF NATIVE GRAPES.

The following is Mr. E. A. BRACKETT's report to the Fruit Committee of the Massachusetts Horticultural Society, in relation to the cultivation of our native grapes.

To the Chairman of the Fruit Committee:

DEAR SIR:—To your request that I would communicate to you my method of cultivating our native grapes, particularly the Diana, the nature of the soil, system of training, &c., I cheerfully reply, not that I expect to throw any new light on the subject, or that my mode will be found to differ materially from that of others. The growing interest felt in this department, the certainty that it must continue to occupy a prominent position in the horticultural art, assures me that the experience of any one, however simple, may be of service.

My little vineyard is situated on a side hill, facing the west, and protected on the north by a belt of pine woods. I should have preferred a more southern or eastern aspect. The soil is by no means what would be called a strong one; it consists of from four to six inches of turf mould, with a reddish subsoil about two feet deep, resting upon a bed of blue gravel. In preparing for the vines the ground was trenched two feet deep, and the top soil put at the bottom. Stakes eight feet long were then set at the distance of seven feet apart each way; one vine was planted to each stake, and immediately cut down to two eyes.

And here let me say a word as to the time of setting the vines. My experience is greatly in favor of fall planting. A vine set in the autumn (and it should be done as soon as the leaf falls) will in three years be as strong and as capable of bearing a crop of fruit as one of five years old set in the spring. The training of my vines is at once simple and ornamental. The first year two shoots are allowed to grow, and as they elongate, are carried spirally, both in the same direction, about five inches apart, around the stake, and this is continued until they reach the top. The laterals are allowed to grow at random. In the fall they should be pruned back to within eighteen inches of the ground, and the laterals to one eye.

Second year, continue the two canes from the two uppermost eyes, as directed in the first year. The laterals will require summer pruning. In the fall cut back the canes to within eighteen inches of last year's wood. Continue this course until the vine is established the whole length of the post—whatever surmounts it, is to be cut back. The fruit is borne upon the side shoots, and the pruning is on the short spur system. The form of the vine may be shaped to the taste of the cultivator; that of the pyramid is decidedly the best.

Those who understand the nature of the vine will readily perceive the advantage this system offers. The vine is thus kept at home. The light and air circulate freely through it. The buds break evenly; there is no tendency in one part to rob the other of its due proportion of sap, and when once established, requires less care than any other mode of training.

Some of my vines, the first year after planting, were watered with sink-drain water, and being satisfied that it injured them, I have discontinued the practice, and have since root-pruned them, in order to check too free a growth of wood. Many of my neighbors injured their vines by giving them large quantities of stimulating manures, such as fresh stable manure, dead horses or other animal manure; thereby exciting them to make an increased growth of long-jointed wood. I grow my vines for the fruit, and am satisfied if they make a few feet of short-jointed wood, and the only manure (if manure it may be called) which I now give them is a top-dressing of anthracite coal ashes.

The Diana, with me, has proved a great grower and free bearer—the bunches of good size, and the berries large, some of them measuring seven-eighths of an inch in diameter. It is a matter of surprise that this, the most delicious of our native grapes, should have received so little attention, while new varieties, greatly inferior to it in point of flavor, have been heralded as the greatest acquisition to our list of hardy vines.

The past season has not been favorable to the ripening of out-door grapes.

Respectfully yours, E. A. BRACKETT.

FRUIT GROWING AT ST. JOSEPH, MICH.—A correspondent of the Ohio *Farmer* speaks in high terms of the success of fruit raising in this section.

The certainty of a crop for a few miles along the lake, and the facilities for marketing, the cheapness of land, and the pleasant locality and lake breezes, all combine to make it one of the most seductive to the amateur, or market fruit-grower, in the West. The trees are never injured by the cold in winter, as the lake never freezes, and the thermometer rarely ever gets below zero, when a few miles east or south, it frequently is down twenty degrees below zero. Many may think this is an over favorable account of this locality, but I am only giving my experience here, which is short, hardly enough to become acclimated—two winters. I came from Missouri, a little over a year ago, and bought a place for three thousand dollars, and my peach and pear crop sold to a dealer here for nineteen hundred and sixty-one dollars. I have only three hundred and eighteen bearing peach trees, and one hundred pear trees, the latter quite young. This is the reason for the faith that's within me.

REMARKS.—Dry your peaches, and send them East—we will give you 15 to 20 cents per pound for them.

COMPLETE FARM HOUSE AND STABLE.

Designed for the New England Farmer, by G. E. Harney, Architect, Lynn, Mass.

In addition to the conveniences afforded by a former design for a *Complete Farm House*, we have included in our present plan a large shed for the market-wagons, and a stable connected with the main house, and furnishing room for horses and carriages, pigs and hens, with ample storage room for fodder in the loft. The arrangement of the plans of the house and stable is as follows:

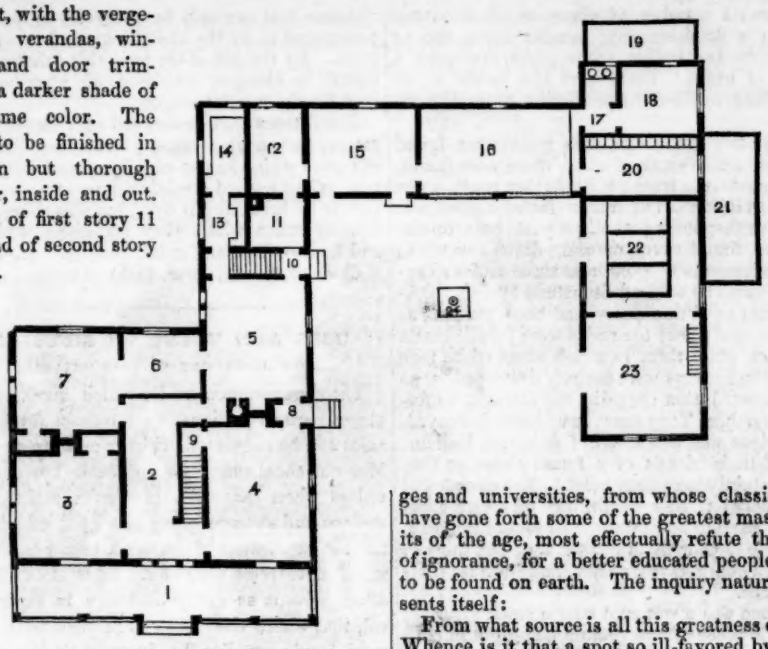
No. 1, the veranda, is 8 feet wide and extends across the whole front of the house; it opens into the main hall, No. 2, which is 11 feet wide and 24 feet long; No. 3 is the parlor, 16 feet square; No. 4, living room, 16 feet by 20, furnished with a large closet, No. 9, under front stairs. Crossing a small passage, No. 8, where is also a door leading to the yard, we reach the kitchen, No. 5, measuring 16 feet by 18, and containing a large oven and fire-place; No. 6 is a large store-room, 8 feet by 9, opening directly into the kitchen; No. 7 is a bedroom, 15 feet by 16. At No. 10 is another entry, 3 feet wide, leading to the yard; here are also stairs to the chambers and cellar; No. 11 is a scullery or wash-room, 8 feet square, with a chimney in the corner; No. 12 is a tool-room and shop, 8 feet by 13; No. 13 is a pantry, fitted up with sink and shelves; No. 14 is a dairy, 6 feet by 13. From the work-shop a door opens into the wood-house, No. 15; this is 13 feet by 16, and connects with the open carriage-shed, No. 16, 13 feet by 24.

The barn is planned as follows: No. 17, passage leading to the privy and to the covered portion of the pig-sty, No. 18. No. 19 is the yard connected; No. 20 is a hen-coop, 9 feet by 18, fitted up with a couple of rows of nests, and opening upon the hen and stable manure yard, No. 21; No. 22 contains stalls for three horses, with feeding troughs in front; No. 23 is a carriage-shed and harness room, 18 feet square; at No. 24—in the yard—is a pump with a horse-trough attached.

The second floor contains six bed-rooms besides bathing-rooms and closets. The attic may be left unfinished, and used for storage.

Construction.—These buildings should be built of wood, covered with plank in the vertical and battened manner, and painted some pleasing neu-

tral tint, with the vergeboards, verandas, windows and door trimmings a darker shade of the same color. The whole to be finished in a plain but thorough manner, inside and out. Height of first story 11 feet, and of second story 9½ feet.



Cost, in New England, about $4000.

G. E. H.

For the New England Farmer.

NEW ENGLAND.

MR. EDITOR:—New England is a cold, rough, inhospitable region; the soil is for the most part sterile and rocky—instead of level plains and fertile valleys, we behold for its most common scenery lofty mountains and rugged cliffs. Its winters are long, cold and dreary, replete with recollections of drifting snows and frozen limbs. Its summers are hot and scorching; the tillage of the soil is a continual war between man and nature. It would seem that at some previous time, far back in long past geological epochs, New England must have been the theatre of fearful convulsions in nature, which rent its surface into almost every conceivable form; even the very streams seem to partake of the same spirit of strife, for instead of flowing smoothly along in their accustomed channels, they clash furiously above their rocky beds, agitated by a continual turmoil, chafing and foaming in their impotent rage.

From the nature of the soil and climate, the agriculture is necessarily limited, and is a very laborious occupation, while its mineral wealth is insignificant. Judging from all these circumstances, it would seem that it must ever be sparsely populated, and that poverty, with its attendants, vice and ignorance, must ever be the common lot of those few. But how different is the reality. We behold a denser population than in any other part of the New World; a country thickly dotted with flourishing villages and populous cities. And in place of poverty, we find vast wealth, both individual and concentrated; while a school-house on almost every hill, with high-schools and academies counted by thousands, and numerous colleges and universities, from whose classic founts have gone forth some of the greatest master spirits of the age, most effectually refute the charge of ignorance, for a better educated people are not to be found on earth. The inquiry naturally presents itself:

From what source is all this greatness derived? Whence is it that a spot so ill-favored by nature, so insignificant in appearance, should be capable of wielding such an influence, not only in the affairs of this great Republic, but also of the entire world? I would answer, that, under God, it is owing to the people who inhabit it; who by their enterprise and indomitable perseverance, have finally surmounted many of the almost impassable obstacles which surround them, and have made New England what it is, one of the most interesting and important places on earth. I will endeavor at some future time to state the comparative influence which the various classes in society have exerted their various duties, and particularly the duties of New England farmers.

Belchertown, Mass. E. NORCROSS.

For the New England Farmer.

RELICS OF OLD FIGHTING TIMES.

MR. EDITOR:—Much interest has been occasioned by the discovery not long since, in this town, of certain remains supposed to be those of some of the unfortunate men who composed the celebrated and ill-fated "Rogers's Expedition."

This expedition, after the destruction of the Indian village which was the object in view, seems to have divided into three parties, all of which perished, with the exception of three men only, who escaped half-dead with hunger and fatigue to tell the mournful tale.

One party passed on the west side of Memphremagog Lake, another on the east side, while the third went farther to the east, and according to certain indications, over the very place where these relics were found. They consist of a gun barrel of an old style called a fusee, with a ball about half way down, the lock of which was broken as if in a hand to hand fight; two or three clasp knives, which were open; several bullets of

two sizes; a number of silver or silver plated buckles; a drinking cup, powder horn, two or three coins, two Indian stone pipes, and quite a number of beads. There were also bones which on handling, fulfilled the prediction, crumbling into dust.

Twenty-five years ago, two guns were found about half a mile south of where these were found, leaning against a tree. Still farther south a few miles, in Holland, Vt., a man found a gun, and afterwards happening to dig a post hole on the same spot, found seven or eight dollars worth of Indian ornaments of gold, and three or four sunglasses, which he sold on Stanstead Plain.

It seems as if this party had been pursued as far as the spot where the relics were found, that a battle took place there in which some white men fell, and the Indians were entirely destroyed, or so badly defeated that they did not attempt to follow any farther. They must have been destroyed, for the pipes and beads tell of unburied Indians. None of their friends ever found them, or they would certainly have been buried. The guns found in two places farther south, tell of a retreating company passing southward. No longer pursued, and unable to bear them farther, they left them to be found a hundred years after, and indicate their bloody path.

The place was a wet spot near a small river. It was a little piece of new ground being got in, and fire running over it uncovered the remains which had been covered with leaves; the reason they had not been discovered before, as the country is well settled. No ramrod was found, though most of the other parts of the gun were.

Stanstead, C. E., June, 1860. J. G. Field.

For the New England Farmer.

PRUNING TREES.

Mr. Brown:—What a beautiful season we are enjoying. I go into the house each pleasant evening, only when it is too dark to see anything more abroad! There is a great promise of apples. I never saw a fuller blossom; and enough are sticking on, and swelling up rapidly day by day.

I am spending a good deal of time with a saw and mallet and broad chisel, trimming. The summer is the time for this work. I see every year that some don't believe it; think it better to slap into the trees at their leisure in March and April. The practice is a wrong one, I have proved it. Wounds of any size made in those months will bleed, and not soon heal.

Those who expect large, fine apples must take a hint from Mr. Bull's method of raising such magnificent bunches of grapes. His vines are headed back, pruned, pinched, till the whole force of well-supplied roots is driven into a few mouth-watering clusters. Nature in trees provides against casualties. There is an excess of limbs. Some may be destroyed and the tree remain more comely and productive.

I have always been a strong advocate for trees. They are to the landscape what the hair is to the head—an ornament and a defence; and if fruit trees well tended, particularly, a source of profit as well as pleasure.

It is well to consider. On your farm there lies buried, below the reach of the plowshare, much richness that can only be of service to you when penetrated to by the absorbing rootlets of thrifty trees. By the aid of the tree, this otherwise lost matter is changed into food for your family, or load for the market-wagon.

But if trees work downward with benefit to their owner, they work upward with no less. This mass of leaves which has so rapidly spread over every tree, is but a great straining apparatus; purifying the air by breathing it over, but absorbing from it floating atoms which they transform into wood and fruit—silver and gold. W. D. B.

Concord, Mass., June, 1860.

USES AND VALUE OF MUCK—III.

HOW MUCK MAY BE BEST OBTAINED.

The circumstances under which muck beds are placed are so various, that only a few general rules can be suggested, which would prove useful. Many of them cannot be approached with teams, unless when the ground is frozen, and then the springs and swamps being usually filled with water, the excavation of the muck becomes an operation of extreme difficulty. Beds thus situated often present so many obstacles to their removal, that where the farmer is in possession of the most ample supplies, he foregoes their advantages rather than encounter such difficulties, and consequently expenses, to procure it. The only way in which we have been able to obtain it from such localities is, to take advantage of a severe summer drouth, and throw up large quantities in compact, high piles, and leave it to be hauled away by sled or cart, when the surface is sufficiently frozen to support a team. If near the high land, and the muck is of good quality, it will justify the expense of wheeling it but upon planks laid for the purpose. The valley muck, heretofore spoken of, may usually be removed at once by teams, but if thrown up and allowed a sufficient time to drain and dry, the expense of carting will be considerably reduced.

SOME OF THE MODES IN WHICH MUCK MAY BE PREPARED FOR USE.

The most common way in which muck is used, and the most practical and profitable, is to collect and store it in a dry state in some place convenient to the droppings of the stalls, and each day spread upon them twice as much as the droppings themselves. The late Elias Phinney, of Lexington, Massachusetts, who introduced this practice on a large scale, and whose ample deposits near his barns we have often seen, assured us that he estimated three cords of manure composted in this manner at a higher value, than three cords of the droppings alone. Perhaps no other man in the county has given this subject so much attention. He displaced acres together by cutting deep ditches and taking their muck away, then nearly filling them with stones which obstructed

his operations on the high lands, and covering them with the nearest muck, and so continued until the whole was accomplished. These grounds were then enriched with the compost of which they had furnished the principal part, and two to three tons per acre of excellent Timothy and red-top hay was their product for some ten to fifteen years in succession. His operations in this matter were extensive, conducted in a systematic manner, and the conclusions to which he arrived in relation to them, have been abundantly sustained by other manipulators, and by careful analysis by scientific men. His experiments, descriptions and statement, have conferred benefits upon the agricultural industry of the country, which are already appreciated by thousands, and will continue to be by thousands more, as they gradually apply the rich treasures of inexhaustible muck beds to their lean and famished fields.

As it is in this particular form that the farmer is to find his chief advantages in using this great gift of nature, we will briefly present the practices and results of some of the systematic and money-making cultivators, whose operations we have long observed, and who stand as worthy examples for all. Next to the patient, long-continued and valuable efforts of Mr. PHINNEY, of Lexington, no man has done more in this branch of industry for the public welfare than the Hon. FREDERICK HOLBROOK, of Brattleboro', Vt. The *Plow* and the *Muck-bed* have been the themes of his thoughts and conversation, until he has given to one forms of beauty and utility that strike the beholder with admiration, and has manifested to thousands that in the other lie concealed the future harvests that are to give our people a prosperity heretofore unexampled in the nations of the earth. That out of these dark and neglected masses shall spring, indirectly, plants and fruits heretofore unknown, cattle of symmetrical forms, and horses competing with the wind; that broad fields shall be restored to more than their pristine vigor, and fair hamlets and villages shall cover the land, and the homes of the farmer be made vocal with thanksgiving and joy, through the blessings of a material heretofore "trodden under foot, and despised of men." His practice and his precepts have gone hand in hand together, and their results have been so open and obvious, that the cavils of critics have been hushed, and the fears of the doubting dispelled. His fields and his garners and his stalls have all been the witnesses of his success, until prejudices have been overcome, and those within his influence have gladly adopted his plans. But the circle is comparatively small, and the aid of newspapers and farmers' clubs must be invoked to scatter the good tidings throughout the land.

Several articles from the pen of Mr. H. have been published in these columns, relating his every-day practice, especially upon muck and barn manure, muck and ashes, and muck and lime composts. In relation to the first of these, he says:

"The floor of my stables is just long enough for the cattle to stand or lie down upon comfortably, and no more. Five feet and three or four inches, from the mangers or standards to which the cattle are tied back, is a suitable length of floor for cows, or for young cattle generally; for larger animals the floor should be proportionately longer. Immediately back of this floor, I have a water-tight plank trench, four inches deep, and twenty inches wide. Between the trench or the outside or boarding of the barn, there is a walk or passage-way two feet in width. This trench is the place of all places for manufacturing compost manures. Some winters, muck is put into the trench, and others, leaves and vegetable mould collected in the woods. Last winter, muck was used. It was dug in August previously, and piled on dry ground near the swamp to drain and lighten; a part of the heap was carted to the barn as soon as the cattle were to be stalled in the fall, and the remainder was hauled by the first sledding and piled near the stable door or under a shed open on the south side. In the coldest weather of winter, the frost penetrated the pile pretty deeply; but the muck was easily cut up with a sharp pick-axe, and it thawed very soon after being deposited in the trench. I could have readily put the muck in a place mostly free from frost, but preferred to have it frozen; for that operated mechanically to break down the lumps, to divide, pulverize and improve it.

A bushel basket full was put behind each animal, every morning. The droppings of the day and night fell into the trench, upon the muck, the liquid droppings completely saturating it, and the contents of the trench, thus mingled, were thrown out in the morning. In the very coldest days of winter, a thin sprinkling of straw or other litter was placed over the bottom of the trench, before putting in the muck, which prevented the latter from freezing to the trench. There were but few days, however, cold enough to make this precaution necessary. The cattle always had a bedding of straw or other coarse litter, which was daily thrown out with the contents of the trench, and served to swell the manure heap, to keep it up light, and to promote fermentation. The compost was nicely and minutely mingled every day by this mode, and no shovelling ever afterwards was necessary. The droppings falling upon the muck fresh and warm from the animals, and coming in contact with every portion of it, produced an immediate action on it, so that a much larger quantity of muck was well prepared for use in the spring, than could have been properly prepared with the same stock, and by ordinary modes of composting.

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"It has been a custom with me, for many years, to collect from ten to twenty cords of this material, composting it variously with the excrements of animals, and applying it for the improvement of tillage fields: and I have not yet seen cause to abandon the custom. True, it would not be advisable to remove this mould indiscriminately from the forests; but if taken from the hollows and places where it gathers in extra quantities, it soon accumulates again sufficiently for the wants of the trees, and if it be taken only from these places, leaving the knolls and plains undisturbed, the injury, if any, to the forests, will be more than balanced to the owner by the benefits imparted to his tillage fields and crops. * * * If you winter fifteen to twenty head of cat-

tle, you can re-arrange your stable floor, and construct a trench in it at an expense of about twenty dollars; and this will answer the purpose for years."

This mode of preparation requires no uncommon skill, and commends itself to the practice of all, because any common laborer of the farm may accomplish it; and it needs no adjuncts from chemistry or what are called the "specific" manures. When this course is steadily persevered in, there will be little or no drainage from the heaps, and very little evaporation; and although the heaps may compose the droppings of twenty or thirty head of cattle, there will be scarcely any odor from them perceptible to the nicest sense. Such heaps must retain nearly all the fertilizing qualities that the droppings ever possessed, whether of ammonia, or any thing else. After lying a few weeks in this condition, the whole mass is black, pasty and moist, and may be cut through with a shovel, as though it were a mass of fine moist loam, or a soft new made cheese. Another mode, and one which is claimed by some to possess advantages over all others, is, to deposit a plentiful supply of well-seasoned muck in some spot convenient to the leanto, and then to cover the entire floor where the cattle stand and lie, as well as the trench and floor behind them, with the dry muck to the depth of four or five inches. It is argued that this not only catches every thing that falls, but that it forms a softer and better bed for the cattle to lie upon, than straw or meadow hay, and that a bed of this kind is of essential service, especially to working oxen and cows that are kept tied up a considerable portion of the time. Once or twice a day, this bed is raked over, and all the wet or moist matter dropped through the scuttle into the cellar, or thrown out upon the heap, and the bed supplied with fresh muck and levelled as before. We have never adopted this mode from the want of a suitable place to deposit the dry muck, but are inclined to think favorably of such a plan.

BOOK KNOWLEDGE VERSUS PRACTICAL KNOWLEDGE.

The prejudice against knowledge derived from books, and the custom of opposing it to that which is learnt by practice, originated in those times when books were almost confined to theology and to logical and metaphysical substances; but at present there is scarcely any practical knowledge which is not to be found in books. The press is the means by which intelligent men now converse with each other, and persons of all classes and all pursuits convey each the contribution of his individual experience. It is therefore as absurd to hold book knowledge at present in contempt, as it would be for a man to avail himself only of his own eyes and ears, and to aim at nothing which could not be performed exclusively by his own hands. That experience which in exclusion of all other knowledge has been derived from one man's life, is, in the present day, scarcely worthy of the name, at least for those who are to act in the wider and higher spheres of duty. An ignorant man in such a sphere, if too proud to take advice, will ruin himself by his own blunders, and if not too proud, by adopting the worst advice offered.—*Coleridge.*

KEEPING FISH IN TANKS AND AQUARIUMS.

For nearly thirty years I have studied the habits of fresh water fish in the rivers about London, and though I am a bad hand at writing, having spent more time at the water-side than at books, I know that I have learnt much that may be of use to those who are interested in the subject, but have not had the advantage of practical experience.

There are many gentlemen now keeping aquariums, and the questions I saw in "the *Field*," some time ago, have led me to contribute my mite of information as to the best way of keeping fish alive and healthy. A few days ago, I went to the Zoological Gardens to see the fish, and was disappointed at their unhealthy appearance. I could see where the fault was at once; the water was too deep, and ran in at the top, instead of at the bottom. Now, if the water were to run in at the bottom of the side of the tanks, it would cause a stream and keep it all on the move; but, as it is, it is quite still at the bottom, and the fish are without perceptible motion.

The trout in particular should have more stream, as it would cause more air to be circulated through the water; and it should be borne in mind that the bottom of the tanks, if water-tight, are also air-tight—very different to the bottom of a river. I saw they were trying to cause as much air as possible by means of water-weeds, which were giving forth their little globules as fast as possible; that is very well, but to keep the fish alive and strong, there must be more commotion through the whole.

I have never yet seen an aquarium on the right principle, as they all receive their supply of water at the top instead of at the bottom. How I found it out was as follows: I used to keep live baits for fishing, and had a tank eight feet long, and placed in a cool cellar, with a cistern above it. I have had many hundreds of roach, dace, gudgeon, bleak and minnows, with a favorite perch, and a lively little trout at one time. At first I kept the tank full of water, with a wire-work covering to prevent the fish jumping out; and in hot weather I would sometimes find more than a hundred dead a night.

This set me thinking as to what was to be done, and while I was at the Thames fishing one day, and watching the fish at the bottom, the water being clear, a thought came into my head that I would make a miniature river of my tank, and cause a stream to run through it; so, in the course of a few days, I made a hole at the end to let the water off, only four inches from the bottom, which, of course, left the water four inches deep in the tank. I inserted the supply-pipe at the bottom of the other end of the tank. I raised one end up by means of blocks underneath, so that it was deeper at one end than the other, turned

the water on, put the fish in, and watched the result.

They were frightened at first, and all went into the deepest part; but next day I peeped through a hole, and saw them struggling which should get nearest the supply, their backs out of water, for at the upper end, the water was not an inch deep. I seldom lost many after that.—ALFRED GOULD, *in London Field.*

For the New England Farmer.

SYSTEMATIC FARMING.

MR. EDITOR:—It is a sound principle in agriculture that a farmer should return to his fields as much fertilizing matter as he takes from them. As I have extracted something of a fertilizing and productive nature from your field of labor, I feel constrained to make a small effort to return something to the *New England Farmer's* soil, from which I received it.

System is necessary to any enterprise, which requires a process of labor. In no department of business are orderly arrangements more necessary than in agriculture. The seasons revolve in perfect order. Summer and winter, seed-time and harvest, are established by an unchangeable law, and each has its peculiar demands on the farmer. Winter calls on him, in his loud, grum voice, to prepare for spring. This cold season of the year has work of its own to be performed. The barn and the woodhouse call for special attention; and let their calls be attended to in their season. A systematic method of feeding stock is not a small item among the duties of the husbandman. When stock pass from grazing to feed on hay, they need that which is of good quality, for a short time. As a farmer has fodder of different qualities, it should be distributed at different times. Cattle and sheep like a variety of food, as well as human beings; and it is good economy to gratify their taste. It is profitable to the owners, and beneficial to the animals to have stated and regular times for feeding them, and to give them small portions at a time. In this way they will leave less food, and derive greater benefit. The winter season is the right time to provide and prepare implements for spring work. Another item in the catalogue of farm work for the winter season, is the reading of the *New England Farmer.* Here the farmer can gather a rich harvest for his mind, and pick up rich droppings for his fields, to be applied in the spring.

As soon as the ground ceases to be clammy, it is time to plow. It is best to sow as early as the soil can be well pulverized. The earlier spring grain is sown, the more secure it is from blight, and from insects. It may be asked by some, what causes rust on the stalk of English grain, and what connection it has with the blight of the turnip? To this I reply: When the stalk has come to its growth, and the kernel is in a milky state, a warm and damp state of the atmosphere makes the stalk tender, causes an increased rush of sap upwards, and the consequence is a rupture of the tubular vessels of the stalk; the sap leaks out, moulds and is rust. The nourishment that was going up to support and mature the kernel, leaked out by the way; the kernel received but a partial support, and of course, came out lean or blighted. If grain comes to maturity early in the season, it will probably escape these sad effects.

If the ground was sufficiently manured for the corn crop the last year, there is no need of manuring the present year. The soil is rich enough for a profitable English crop, and for several grass crops.

The summer is the time to gather the first harvest. Care should be taken to select the right time to cut grass. Experience and observation are the best teachers on this subject. The two great objects in cutting grass at the right time are to make the hay most palatable, and most nutritious to animals which are fed on it. These two objects, I believe, do not conflict with each other. When grass is in full blossom, it will make hay, that will answer both purposes. If grass be cut *before* this time, it has not acquired all its nutriment, nor all its flavor. If it be cut *after* this time, the nutritious matter, in some degree, is converted into a woody substance, and into seed, and the two leading objects are much impaired. English grain should be cut as soon as the milk of the kernel is changed into flour, and the kernel will not shrivel by drying. Cut it *earlier* than this, and the grain has not acquired its maturity. Cut it *later* than this, and the flour has deteriorated. Cut grass or grain a week later than they ought to be cut, and that last week will be more exhaustive of the soil and manure, than any week during their whole growth. There is a great loss, and it should be avoided.

The latter part of August is the most favorable time to cut bushes for the purpose of killing them. At this time all the sap, for that season, (with a few exceptions,) has ascended into the stems and branches,—and this is the right time to cut them off, and prevent its return to the roots.

The autumn is the time to gather the latter harvest. There is some difference of opinion among farmers respecting the *manner* of harvesting the Indian corn crop. Some prefer the old way of cutting the stalks when the kernel is a little seared. Others prefer cutting up the corn and stalks at the same time, stooking them, and let time and weather produce their natural effect. Without using argument or philosophy on these two methods of harvesting, let any farmer who pleases, make the experiment on the subject, and satisfy himself, and give a reason, if he can.

Another important item in systematic farming is the early training of steers, and colts, and hogs. Animals are more easily disciplined when young, than when they have come to their full growth. Before maturity they can earn a part, or the whole of their living, and perform labor with greater ease. Farmers' boys should be put early to work. They should have good tools, and be taught how to use them. They should have good examples, and encouragement to labor. They should have a patch of ground to cultivate by their own management and for their own profit, and they will make farmers, and probably better ones, than their fathers.

H. M.

Milford, N. H.

REMARKS.—We hope the reader will give attention to what our correspondent says above about the time for cutting grass, and to several other points of importance in his communication.

FROTH-HOPPERS, OR FROG-HOPPERS.

It is curious and interesting to observe what different plans insects have to protect themselves and to propagate their kind. Some gather into groups and enclose themselves with a thin, delicate covering, yet one that seems to exclude rain and wind; others encase themselves in a tough, silky covering, in short, barrel themselves up as tight as a cooper could do it, and there wait for a new state of existence! The little fellow whom we are talking about, the *Froth-Hopper*, has

a way all his own, and quite likely would laugh at any one who should propose to build him a house better than he can build one for himself.

Have you noticed on the grass, this summer, or on twigs of the trees, an unusual quantity of a whitish, frothy substance, clinging to the twig or stem of the grass, and about an inch or more long? "Yes, and have often wondered what it could be." Well, this is the little froth-hopper's house, where he remains until he has completed certain transformations. And how do you suppose he builds it? It is said that after alighting upon the grass these insects perforate it "with their beaks and begin to imbibe the sap, and they take in such quantities of it that it oozes out of their bodies continually, in the form of little bubbles, which soon completely cover up the insects. We have several species of these froth-hoppers in Massachusetts, and the spittle with which they are sheltered from the sun and air, may be seen in abundance during the summer on the stems of alders and willows, and on the grass.

The head of this insect is broad, and extended forward in the form of a triangle, and the face slopes downward towards the breast, so that we do not see it unless by critical examination. They also possess a surprising agility. But this faculty does not result from an enlargement of the hindermost shanks, as in the grasshopper, but to the bristles and spines with which these parts are clothed and tipped. These spines serve to fix the hind legs securely to the surface, and when the insect suddenly unbends its legs, its body is then launched forward into the air, two or three hundred times the length of its own body! In the same proportion, "a man of ordinary stature should be able at once to vault through the air to the distance of a quarter of a mile!" The color of the species whose habitat is on the grass, is a pea green; those found upon trees are darker, nearly black. A little observation will enable one to recognize the insect.

Salting Cream for Butter-Making. — A writer in the *Homestead* reports a statement made at the New Haven lectures, that by adding a tablespoonful of fine salt to a quart of cream, as the latter is skimmed from off the milk and placed in the cream-pots until enough accumulates for churning, the time required for churning is reduced to two or three minutes. In a trial made by the writer, he found this to be true, and his theory is, that the salt acts upon the thin coating of the globules of butter, and so dissolves it that a slight agitation breaks it, and the butter comes at once. The experiment can easily be tried by any butter-maker.

EXTRACTS AND REPLIES.

KETCHUM'S MOWER—REVOLVING RAKE.

I have used the Ketchum's mowing machine and the improved wooden spring revolving rake this week, and find that they work to perfection. Some of the old farmers will say they don't want to use them, for they prefer the old style of doing things; but they may, for all me. They may start for Boston and ride on old Dobbin, and I will take the iron horse and see which will get there first! If any farmer will give the Ketchum improved mower and the improved revolving rake a fair trial, and they are not satisfied that they work well, they may call at Robertson's Hotel and take dinner at my expense.

SUPERPHOSPHATE OF LIME—MOWING MACHINES.

From my experience and observation I think if farmers would use more superphosphate of lime, it would pay them well for their trouble and good interest for the money laid out on it, if it were for nothing but to keep the worms away, which I am sure it will. I have used it in various ways, and always find it doing well. This year I have used some of Coe's. I mixed it with equal parts of ground bone and ashes, and put it on the hill at the rate of 300 lbs. to the acre, and now the result is, that there is not one hill missing in four acres of corn, when on another piece joining, with not even a fence between, at least one-fourth of four acres is ruined by the cut and wire worms. The difference between the cultivation is, that my neighbor plowed his once, and I plowed mine three times; it was broken up this spring. I broke up with the double universal plow, and then plowed it twice. I have tried it in the garden and the result is as good as on the field. I put it on some cabbages and left one row without any. The worms would cut off those without it every night until I put on the lime. I am satisfied that if any farmer begins to use it he will not willingly do without it.

Charlestown, N. H., July, 1860. J. F. G.

BONE MEAL FOR COWS.

My father has two cows that are disposed to chew sticks and bones when they can get them. Will bone meal cure them? If so, please inform me where I can obtain it pure, and what quantity should be given at a time. W. I. Simonds.

Roxbury, Vt., June 27.

Remarks.—You can procure bone meal at Nourse & Co.'s, 34 Merchants' Row, Boston. Give each cow a gill, and if she eats it, a gill more two days afterwards. If she does not eat it, mix the same quantity with corn meal and feed it in that way. If you should sow five to ten pounds per acre upon your pasture it would have an excellent effect.

HOW TO MAKE CORN BEER.

Some time ago I noticed an inquiry in the *Farmer*, "How to make good corn beer?"

To two gallons of water, add one quart of dry corn, one pint molasses, one table-spoonful ginger. Let it stand in a cask or demijohn, and in one week it is fit for use. The same corn will answer for several brewings, but the cask should be scalded each time.

Roxbury, Vt., July, 1860. W. H. Walbridge.

SETTING STRAWBERRIES.

Can you inform me what season is the best for setting out a strawberry bed? What is the best form for the bed? What kinds are best to raise for market, and at what price can the plants be procured? H. C. C.

Southboro', June 30, 1860.

REMARKS.—August is a good time to set strawberries, and so is April. Set the plants in rows two and a half or three feet apart, and the rows one foot from each other. Then put a row of beets in the centre between the rows and cultivate well. If the land is good and the plants are well tended, they will give great crops for one or two years, when the runners that take root in the centre of the rows may be preserved and the old roots dug up. In this way the bed may be made perpetual and very prolific.

Several kinds are now brought to market, and among them Hovey's Seedling, Early Virginia, Cutter's Seedling, Jenny Lind, Brighton Pine, Wilson's Albany, McAvoy's Superior, &c. The price of these varies from $1,00 to $1,50 per hundred plants.

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A WHITE GRAPE.

In the November number, 1859, Mr. Gregory, of Marblehead, Mass., wishes to see a native white grape. In reply, I would say, that the article has grown by a little brook in my pasture for twenty years past, though not every year. Should the vine bear this year I will endeavor to send him a sample, hoping they will not destroy their good name by blushing before his scrutinizing vision. D. F. TUCKER.

West Northwood, N. H., June 21, 1860.

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CORN AND BUCKWHEAT.

In the *Farmer* of June 23d, "I. S.," of Mansfield, inquires if he can raise corn after buckwheat. I raised buckwheat two years in succession on a light piece of land; the next year, (last year,) I put on a light spreading of manure, plowed it in, and there was raised as good a crop of corn on it as was raised in the neighborhood.

CURE FOR THRUSH IN HORSES' FEET.

Clean all the dirt or filth out around the frog, jam in fine salt, and then wet it with beef brine two or three times a day, and a cure will soon be effected.

Methuen, Mass., June, 1860. D. W. N.

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A LIST OF FLOWERS FOR A NORTHERN CLIMATE.

Will not some of your correspondents who are well acquainted with the cultivation of flowers give me a list of flowers which are hardy, and will stand a Vermont winter out of doors, say thirty to forty varieties of biennials or perennials? Will your North Hartland correspondent give the information desired, and much oblige a farmer's daughter? MARY.

Rutland, Vt., 1860.

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A SICK COW.

I have a cow which usually has given about ten quarts of milk at a milking. This year she calved the first of April, her udder being, as formerly when calving, much swollen. I took the calf from her when one week old. She has almost entirely lost the use of two of her teats. She gives about a gill on an average from each. Will you give the cause and remedy?

BUCK EYE.

REMARKS.—We cannot. Got cold, perhaps. Two or three doses of aconite might cure her.

—

HOLDFAST.

I have a valuable steer that has a swelling on his under jaw, called a holdfast in this section. You may have some other name for it. It is a hard substance. Will you, or some of your subscribers, inform me what will cure it? N. MATTHEWS.

Henniker, N. H., June 10, 1860.

TO STOP BORERS.

To stop borers in fruit trees, I dig about old ones, and put on the tree, near the roots, a wash of thin coal tar, or gas-house tar. Put it on with a brush. I think it will not hurt the tree; it has not mine, and the insect will not trouble any such trees. G. L. HITCHCOCK.

Ashley, June, 1860.

For the New England Farmer.

CAUSE OF THE POTATO ROT.

MR. EDITOR:—I must be permitted to express my profound surprise at the reply of Mr. Lyman Reed to the call I made upon him to answer the *seven reasons* I had offered to show that insects were not the cause of the potato rot. He says, "I answered Mr. Goldsbury through your columns, May 12th, at his own request. His seven reasons of March 3d, I refuted by actually showing, attested by reliable certificates," (of seventeen members of Congress who spent one whole day in examing into the subject,) "that insects cause the potato blight and rot." Again, "I have frankly given him the authorities," (the seventeen members of Congress,) "which establish beyond question the true cause of this malady." And again, "I gave Mr. Goldsbury no logical answer, because I produced ocular facts—facts attested to by the highest authority in the nation."

Now, according to Mr. Reed's own showing, my seven reasons remain untouched and unanswered; he has given them no logical answer: he has made no attempt to show that they are unreasonable or untrue in point of fact; he has simply offered a certificate from seventeen member of Congress, who have jumped at a certain conclusion, because on a certain day at Washington, Mr. Lyman Reed, by the aid of a microscope, exhibited to their view certain insects on certain potatoes which he had kept for that purpose. Now, all this may be admitted to be true, and still the potato rot may not be caused by insects, because the insects may be the consequent or concomitant of the rot, and not the cause of it. The point to be proved is not that insects are found upon rotten potatoes, but that they are the cause of the rot. If Mr. Reed, who talks so much about ocular demonstration and well attested facts, would direct his attention to this point,—if, instead of making so many assertions, and attempting to bolster himself up, on the certificates of others, he would condescend to attack my seven reasons, each and all of them, and endeavor to show by the force of reason that they are unreasonable, he would be sure to secure my respect, and stand some chance of making converts to his cause. JOHN GOLDSBURY.

Warwick, June 25, 1860.

PRESERVING INDIAN CORN.—The Prairie farmers of the West preserve their Indian corn in the ear, without the loss of a single grain from heat and moisture, by piling it up in common fence-rail cribs about 11 feet square and 9 feet high, the mass being rounded off at the top and exposed to the weather. Covered cribs are found to be ruinous to the grain, as experience has amply proved. So what would seem to be a shiftless style of husbandry, is the result of skilful experiment.

A TRIP AMONG THE FARMERS.

Dracut, Mass., June 29, 1860.

OVING along at an easy pace with my one-horse power, I reached this place at about eleven o'clock; the morning had been sultry and hot, followed by a copious rain, and before night set in there was a splendid display of fireworks and artillery. What a pity it did not happen on the 4th of July! What a world of powder and crackers it might have saved! Glad to reach shelter from the pelting rain, and still more to become acquainted with the family of an old friend, we (for I had a woman with me) turned aside at the inviting homestead of Mr. Asa Clement.

The rain was very considerate, for after loading the foliage, flooding the roads and drenching everything else, it ceased, and Mr. Clement and myself went forth to see what the month of June had to show. And a splendid show it proved—all beyond the power of my pen, aye, beyond the power of *any* pen to describe. What fullness everywhere—in the field and forest, in the orchard and garden! What a prodigality of foliage and coloring, and what lavish promises of future harvests! If nature permits all this gorgeous scenery to fade and decay, can she ever produce its like again? It seems impossible! Look at those trees, only a few days ago leafless and bare; now how their foliage shines—how dense and grateful is their shade in the fervid noon! And the fields, how crowded with nutritious grasses and fragrant blossoms,—the air is redolent with their perfumes. But Nature is not content with this wonderful display for the sense of smell and sight, so she regales the ear with the voices of singing birds and running waters! How few contemplate this world of beauty and mystery aright, in thankfulness and love. How many look upon it all as a matter of course, as nothing but rocks, and grass, and trees, after all, instead of so many infinite expressions of wisdom and love.

These were my first feelings, and the present condition and probable progress of agriculture next occupied my mind.

Mr. Clement entered upon his farm with slender pecuniary means, and whatever he has done to make the desert blossom, to secure a reputation as a skilful horticulturist and good farmer, or to gain a pecuniary competence and a substantial and permanent home, has been done by agricultural pursuits alone. Among the present objects of his care are some thousands of young apple trees, for which he finds a demand pretty much all over Middlesex county. His trees are healthy, and so formed in the nursery as to need little shaping after being transplanted. This is a point of considerable importance to the purchaser, and more especially to those who are not particularly acquainted with the management of young trees. His grounds are also stocked with standard apple and pear trees, with peaches, a variety of grapes, and smaller fruits. Ascending the hill to his nurseries, I passed an extensive peach orchard, but without a peach to be seen, and the trees, though not old, had the appearance of age and decay. On passing higher up I found another orchard of peach, intermingled with apple trees, every tree of which seemed to be loaded with fruit—a sight my eyes have not been blessed with before, this season. The cause of this fruitfulness is probably *altitude* and *shelter*, as the trees are not only on a high piece of land, but are sheltered by the apple trees mingled with them, and on the north and northwest by a belt of forest trees four deep, and occupying a space of about twenty-five feet in width. Outside of this belt, and entirely exposed to the northwest wind, is a row of peach trees full of fruit, which are undoubtedly protected by the belt, though on the south side of them. The force of the wind is obstructed by the belt, and the sun's rays tempered so that the atmospheric changes in the neighborhood of the peach trees are not so sudden nor in such extremes as they would be without it. In connection with the lighter and warmer air than is found in the valleys, these trees have the effect of so modifying and ameliorating the climate that the peach tree remains fruitful.

This instance affords a fine example of the benefits to be derived from shelter. Indeed, success can scarcely be expected without it, in the cultivation of peaches, pears, and most of the small fruits; and our common garden crops, such as beans, peas, squashes, &c., do much better where they are protected from violent winds.

Mr. Clement has made an experiment with apple trees that I have not seen elsewhere, and which promises good results. In a pasture where his cows run he found many thrifty young apple trees which he transplanted into rows at quite wide distances apart, and then grafted them so high as to be beyond the reach of the cattle, aided a little by the brush which was cut up and thrown around the stem of the tree. The brush not only kept the cattle from rubbing against or browsing the tree, but served as a mulch to keep the soil moist about them. These trees were set seven or eight years ago, and many of them are now in

bearing, with fine stems and heads, and their limbs starting out so high as to be beyond the reach of the cows. Being set at wide distances and with their limbs so high, they do not materially, if at all, injure the pasturage. In a dry season, I am not certain but they may prove of actual benefit to the pasture, as they will act as condensers, and thus cool, moisten and modify the temperature over it. I was much pleased with the experiment and its results, and hope to see it repeated in other localities. In the autumn it becomes necessary to clear the brush and dig the grass away from the tree, as it affords a fine shelter for mice, who find it agreeable to feed upon the tender bark, and thus destroy the tree.

I wish some of the gentlemen who read, and even write for your paper, would visit Mr. C., and while passing over his thrifty acres learn something also of his practical operations upon them. They will find no mystery in anything he has done. It has been plain, common-sense Head Work, with moderate, persistent, Hand Work, skill and labor combined, and each year producing a considerable surplus not wanted for the immediate purposes of the family. This increase has not been secured, either, by parsimonious habits in the family circle, for the Home, and all its surroundings, give evidence not only of thrift and competence, but of highly-cultivated taste. A family of children has been reared, or are growing up, and educated in those elements necessary to the pursuit of agriculture or any other common business of life, and in some branches which are considered as accomplishments rather than essentials. I have rarely heard a better toned instrument or seen a more skilful pianist than I found in one of Farmer Clement's daughters. The fine passages of some of the best composers were as familiar to her as the cups and saucers of the tea-table. And this is as it should be. There is no reason why the farmer who can afford it—and there are thousands who can—should not have his pictures, piano and carriage, as well as the thriftiest merchant that ever sold cottons or candles, or anything else. I do not mention these things because I found them here to-day, for they are quite common now among farmers all over New England, but to wrest the occupation as far as I can from that slough of doubt and disrepute into which some well-meaning but mistaken persons have contributed to place it.

Passing the line of our good State into New Hampshire, I called upon our old friend and correspondent of the *Farmer*, B. F. CUTTER. In a former letter, two years since, I spoke of Mr. C.'s family and farm at some length. My present object was to pay him my respects, and look at his *Seedling Strawberries* on their native beds. One of you had recently seen them in the grounds of Mr. MANNING, at Reading, and tested them at his table, and if I mistake not, lingered at the feast as though "they were not bad to take."

Last year Mr. Cutter placed some of his seedlings in a meadow by opening a hole and inserting the roots into it in the midst of the thick grass roots, for the purpose of testing their hardiness. The crop of grass on the ground to-day would make two tons of hay to the acre, and the strawberries—well, perhaps, *not quite so much*, but if a whole acre were covered as we saw some particular spots, the crop would be enormous. The stems were loaded with ripe and unripe fruit standing six inches from the ground, kept up clean and bright by the grass. Why is not this a capital suggestion? This is the habit of the strawberry, as the finest I ever tasted grew on burnt land newly laid to grass. They were not so large as some of the cultivated ones, but were altogether superior in flavor. Gathering the fruit in this position would tread down the grass somewhat, to be sure, but that loss might be incurred in a small way. The *Cutter Seedlings* have two or three excellent qualities, perhaps more. They are very prolific, grow large and up from the ground, and continue in fruit from thirty to forty days. When I saw them on the grounds of Mr. Manning, in Reading, I understood him to say that they were more productive than any other variety in his extensive list, with the exception of the Wilson's Albany. No person of observation can visit Mr. Cutter and his farm without deriving benefit from it: it is the place to get ideas.

When the big clouds had passed over our heads, and the thunder seemed to be cracking away over yours, we made another stage in our journey, but had scarcely gone ten miles when we were driven by stress of weather under the hospitable roof of Mr. W. W. COOK, in the ancient town of Derry. The surface of the earth where level was soon flooded by the drenching shower. But thanks to the disturbed elements—for they were the indirect means of introducing us to several pleasant acquaintances on the way. Mr. Cook entered upon the old Gen. Derby place about one year since, intending to make it a stock farm, and has already made his mark there. He has erected one of the finest barns we have seen, and such other outbuildings as are necessary on a large farm. The land is admirably adapted to his purpose, and *if he does not attempt to do too much in too short a time* he will succeed. He has the capital, and the field for enterprise before him; it only remains for him to *know how*, to make the farm productive, and at a handsome profit. If he takes it for granted that any body, of any profession, can at once become a good farmer, that idea will quite likely prove delusive, and may be an expen-

sive one. "Slow and sure," should be the motto of the young farmer, or of the beginner.

If these sage suggestions do not compensate Mr. Cook for the shelter afforded us, the kind invitation to tea, the hearty reception we received from his mother, (his wife being absent,) and the pleasant chat with his children, the next time we pass that way we will cancel the bill with the hard, unfeeling cash.

It was gratifying to me to find a man in the prime of life, with means at command, entering upon a large and neglected farm with well-defined views as to what he means to accomplish, and with a determination to make it pay a fair interest upon the capital invested. I wish him all success in his new enterprise, and using the license conceded to an older man, ask him to remember the injunction to "*Be slow and sure.*"

But, bless me, what a long letter. Who will read it? Well, friend, take a saucer of strawberries and cream as you read, and it will not seem too long. Truly yours,

SIMON BROWN.

MESSRS. NOURSE, EATON & TOLMAN.

THE WOOL SEASON OF 1860.

The past ten days have formed an important period in the commercial history of our State for the current year. In that short space of time upwards of one million dollars eastern capital has been actually paid out to our farmers for their wool clip—an amount of wealth calculated, in the present impoverished state of our money market, to work an untold influence for our commercial prosperity. The clip has been a heavy one, and it has brought fair prices. The season is considered to be about three-fourths over. It has been characterized, so far as this State is concerned, by more determined competition than has ever before been known. As was announced in our commercial columns at the commencement, prices were expected to have ruled five cents below last year's rates. This expectation was based upon the difficulty of selling old wool this spring at a reasonable advance on its cost last season, together with the unbettered prospects of the market for manufactured goods.

The feeling was general that the best wools should be taken at a price not to exceed forty cents. As the season fairly opened, a larger number than usual of heavy manufacturers and dealers entered the market. Those who had hitherto purchased in this field conceived that there was an attempt to drive them out, and they exerted themselves to the utmost to maintain possession of the territory, where year after year they had obtained their supplies. Wool-growers having found, by the experience of the two past seasons, that by holding back they could command their own prices, adopted this course. Thus the market opened slowly. There were rumors of the ability of purchasers to pay last year's rates, but as yet they remained firm in their determination to buy for less.

In a small way competition had already commenced, and as high as forty-six cents had been paid at a few places, when on Monday, the 18th inst., the ball fairly opened by a certain heavy manufacturing company giving their agents *carte blanche* to purchase at current prices, whatever they might be. Others, of course, had to do the same, and a general advance was the result. Forty-five and forty-six cents now became the common offering prices, with forty-seven and forty-eight cents, and in some of the principal battle-fields of competition, even fifty cents was not unfrequently paid for choice lots. Thus the market opened, and at these rates the bulk of the clip of 1860 has been sold. The same prices still prevail, but the trade has assumed a quieter phase, which will continue with little variation till another clip comes in.—*Detroit Advertiser, June 27th.*

OUR FARMERS.

Their homes are their castles—their hearthstone a throne—
They rule with no sceptre the kingdoms they own;
The stalks, and the vines, and the fruit-bearing trees,
Are subjects that bend not to tyrants the knee;

But bend with the weight of the orchard and field,
Ever loyal and faithful, a harvest to yield;
No planning and plotting among them is known—
No traitor the sovereign would strike from his throne.

He stands 'midst his acres of grass, wheat and maize,
Like Crusoe, "the monarch of all he surveys."
His banks are the earth banks that stand on his farm—
The banks that are safe when the panics alarm;

The *stock* is the cattle—not *fancy* in breed;
The shares are the plow-*shares* that score for the seed—
Not quoted on 'Change in the broker's array;
But shares on which Nature will dividends pay.

Their banks are not those that the widows condemn—
No officers pilfer deposits from them—
If small the potatoes that in them are found,
Yet none are as small as we find out of ground

The farmer with appetite ever can eat
The bread on his table, "as good as the wheat;"
And, loving most dearly his wife, he may utter,
"My bread and my wife! I'll not have any *but her!*"

With juice of the apple, the wife then may fill
The glass in which lingers no tremors or ill;
And *she* may respond that, whatever betide her,
Most happy she'll be with her husband be*side her!*

There's many a hearth where the embers are glowing,
There's many a heart with its joys overflowing;
The hearths and the hearts from the world's rude alarms
Are safe in the homes that are reared on our farms.

THE SPIDER'S THREAD.—That a creature could be found to fabricate a net, not less ingenious than that of the fisherman, for the capture of its prey; that it should fix it in the right place, and then patiently await the result, is a proceeding so strange that, if we did not see it done daily before our eyes by the common house-spider and garden-spider, it would seem wonderful. But how much is our wonder increased when we think of the complex fabric of each thread, and then of the mathematical precision and rapidity with which, in certain cases, the net itself is constructed; and to add to all this, as an example of the wonders which the most common things exhibit when carefully examined, the net of the garden-spider consists of two distinct kinds of silk. The threads

forming the concentric circles are composed of a silk much more elastic than that of the rays, and are studded over with minute globules of a viscid gum, sufficiently adhesive to retain any unwary fly which comes in contact with it. A net of average dimensions is estimated by Mr. Blackwell to contain 87,360 of these, and a large net of 14 or 16 inches in diameter, 120,000; and yet such a net will be completed by one species—*Eperia apoclica*—in about forty minutes, on an average, if no interruption occurs.—*Introduction to Zoology.*

For the New England Farmer.

A TRIP INTO MISSOURI.

We were tired of the quietude of Sumner, and angry at this dry weather, and at the hopelessness of our getting anything to eat this summer, so we have been into Missouri, to see if there could be any prospects of filling our empty stomachs, and if we should be sure of apples this fall, for we have a Yankee's voracity for apples.

Three years ago, this town was the home of a deep forest, but several "Massachusetts Yankees," with their speculative principles, and the obstinate, daring, clear-the-track spirit of a Yankee, selected this spot as the starting point for "the greatest city in Kansas or Missouri." At the close of a year, we had nearly 200 houses up, including a large brick hotel, several smaller ones, stores, steam-mills, &c. We numbered about 1200 inhabitants, including 400 voters. We kept school, and performed our own housework in a little, unlathed and unplastered house, or rather room of 16 by 24, for the use of which we paid $10 per month rent. It was surrounded by grand old forest trees, down by the river bank, where, all the pleasant summer nights, the Katy-dids kept up their everlasting information that katy-did-it, did it, did it. Did what? we would like to know. We liked the fun of teaching 16 year-old boys their a, b, abs, and older boys the multiplication table, and more especially, learning in a rough way to "do housework." We liked it, because we had none of the ceremony and ennui of the city to discourage us.

But Atchison, our rival town, finding that we were going ahead, began to fall into the hands of Free State men, the fighting characters dispersed, and now Atchison is a fine town, rapidly growing, with railroad, telegraph, churches, schools, and is one of the chief starting points for Utah, the Gold Regions, Nebraska, &c. Sumner is taking a resting spell, after having worked so hard, and in a short time will "pick up its legs" again, and run ahead. But this is not going to Missouri. We crossed the river at Atchison; they have laid out an embryo city on the opposite side, called Winthrop. All along through the low, rich bottom for a mile, are planted the city stakes.

Coming out of this prespective town, we travelled for two miles over a dangerous, muddy road, through a dark, almost impenetrable forest of large trees. Many of the trees are six feet girth, running upward for a hundred feet, without meeting a single twig, or branch. After coming upon the bluff road, we travelled along very pleasantly by pretty farms, but yet very retired and wild. About six miles from the river, we came to Rushville, a town built among the bluffs, but which looks best at a distance. It is fifteen years old, built in an unhealthy place, and has a wide creek running through its middle, breeding fever and ague.

Passing through Rushville, we travelled a good road for another six miles, and then entered Bloomington. What an old, tumble-down place it is. The stores are built in a square, and the dwelling-houses are scattered about, many of them looking like the "last shad." It is twenty years old, has some 1500 inhabitants, has an excellent site, and with the well-settled surrounding country, might make a flourishing town, if a little more energy could be manifested. The inhabitants are lazy Missourians, who prefer to lounge about, and drink whisky, of which the stores sell any quantity. Yet they have some respect for religion, for they have built two good churches, an ornament to the town.

After leaving Bloomington, we stopped at the farm of Mr. P——. They have a large, cultivated farm, a splendid orchard, and plenty of stock. Mr. and Mrs. P. are a very substantial couple, weighing together 500 pounds. They are great, over-grown persons, with heads as large as water-buckets. They have always lived on the frontiers, worked hard, lived on coarse food, and seem likely to live a hundred years. Their children are as proportionably healthy and fat.

Here we met an immense flock of blackbirds migrating North. Thousands upon thousands were there congregated, covering the trees and ground for a long distance. My mouth watered, as I remembered the old nursery rhyme,

"Four and twenty blackbirds baked in a pie."

We next stopped at the farm of Mr. D——, an old bachelor, where we were to remain over night. He owns 3,000 acres, cultivating only 500, with the assistance of his ten negroes. He owns but one woman, the mother of two children. She does the cooking, milks the cows, and raises chickens, &c. All his slaves have good, comfortable cabins, and healthy food. Each is allowed several acres to cultivate for himself, and from which they frequently clear $200 a year, which they spend immediately. They raise broom-corn, and during the evenings, make brooms to sell for their own benefit. Many a Missouri negro might earn his freedom in a few years, but they think that they are too well off as they are. At sunset, they retire from work, and after that time are paid $1,25 per hundred for cleaning hemp. They are allowed two suits of clothes a year, and one pair of boots, and one pair of shoes. Hearing a violin in their cabins, I expressed a desire to witness their dancing, and Mr. D. called them. Two ebony fellows came reluctantly in, and played excellently, while another jet fellow "heeled and toed the mark," to my intense amusement. One of the negroes earns $75 per year by playing at parties. The negro woman has all she can make by raising chickens, ducks and geese. She is a saucy thing, and threatens to kill any woman that Mr. D. will marry. She "don't want any missus bossing her round." Mr. D. and his men raise large quantities of wheat, hemp, corn and stock every year. He has some of the finest horses that I have ever seen. He has a large number of buildings on his place, and is now building a large store-house to store away his hemp for a couple of years, when the price does not suit him. Yet how mis-

erably lonesome and dirty it was there. I would not remain for the whole farm, negroes, and all. Not a book or paper to be found on the place, and the slaves do very much as they please. Mr. D. showed me some potatoes so large, that while one end was roasting in the fire, I could sit on the other end, and not be incommoded by the fire. Have you any such potatoes in the East?

The next day was the Sabbath, and rainy. We were obliged to kill time during the day, by impatiently watching the clouds. Towards evening, we could go to the adjoining farm of Mr. W. We waded through the mud and rain, and soon were beside their cordial fireside. What a difference in the two firesides. The old bachelor's cold, dirty and cheerless; Mr. W.'s bright and cosy, and I rested better in my bed, for I knew that a negro's dirty form had not pressed it.

What a cheerful influence a good woman exerts over a household. Her hand and will places every thing in its proper position, and her happy influence draws the thoughts and love of man towards the central point of his existence—his home, and the humanizing ties found there. She it is who makes the fireside so bright and cheerful; she it is who makes home so beautiful and dear; she it is who exerts an influence upon the prosperity of the State, by the good, or bad men that go from beneath her influence, out into the world to form the future nation. Take her away, and how deserted and cheerless is home—is life. And yet men are very seldom willing to give to woman her just praise, seldom willing to own her influence, seldom willing to own that to her work they are indebted for their life's happiness. O, man, love and respect thy mother and wife, for without them, thy life is distasteful and weary; without them, life would scarce be worth the taking.

Mr. W. cultivates about 200 acres. He owns a very large orchard of thirty different varieties of apples. Last fall, he picked 3,000 bushels, for which he found a ready market at $1 per bushel. They own seven negroes, who know their duty, and perform it faithfully. Mrs. W. was always amongst slaves, and knows how to treat them. Her household is well managed, and she superintends and parcels out the negroes' work. They set an excellent table, and everything is neat, not at all like the majority of the Missouri farmers, who live in dirt, and are always contented with corn-bread and bacon. She makes all the negroes' clothes, and they all look neat, and outwardly happy and contented.

The next morning we started for home, and at night stopped at the farm of Mr. Hoosier, a hoosier in character, as well as by name. Before we reached the house, we met an unfortunate horse, who had upon his back two women, each with an infant and four children scattered indiscriminately upon the horse. A parcel of dogs assailed us as we drove up to the cabin, but soon dispersed at the old woman's cry of "Clar out;" and answered to our request to stay all night, "Wa-all, I reckon." The woman brought out a basin of water, and we were obliged to use the earth as a wash-stand. After washing, we sat down to a supper of the universal corn-bread and bacon, cold cabbage and coffee. The table was spread upon a wide porch, and as the wind blew too violently for a light, it was placed in a window back of us, and we swallowed our food in rather a dubious state, both mentally and optically. The mistress of the house was a great fat, bare-legged, bare-footed woman, weighing only 276 pounds, who slept like an elephant, and breathed like one. She said she was "too fat, and it was mighty unpleasant this powerful hot weather." She was troubled "right smart" with fever and ague, but it did not make her any poorer. They have lived on this place eighteen years, and yet it is about as wild as a Kansas claim. So are most all the river bottom farms. The occupants do not know how to do any thing, but cultivate hemp, wheat, corn and stock, drink whiskey and smoke, and are contented to live drudgingly and ignorantly. Mr. H. has some 300 hogs, cows, horses, and any quantity of hens and chickens. They are very ignorant, and nowhere could I find at least a paper. They supposed that Pike's Peak was on the river borders of Kansas, and would not go such "a heap of way for the gold." And yet they were only 25 miles from the vein. I noticed a clumsy wooden article upon the porch, and asked its use; they replied, surprised, "It's a loom, didn't you ever see nary one before? Why, where was you raised?" "In Boston, Mass." "Wa-all, I knowed ye wa'n't raised in this country, else I reckon you'd know'd what that air is. I suppose Boston is a heap of way from here, as far as Kentucky?" "O, yes, twice as far." "That's a heap of ways; did you come all the way in a wagon? La me, it seems as if Boston must be on the other side of the world, it is so far off." The old man insisted that I was wrong about the location of Boston. "It is on the other side of the ocean, ain't it?" And so throughout the whole evening, they astonished me by their ignorance. At night we slept, twelve, men women and children, in one room, and I soon became conscious of other than human occupants in my bed. Before breakfast, the old man brought out the whiskey bottle, and filling a glass half full of the raw article, offered it to me, saying, it would "give me an appetite." I declined, but the rest, including the women, took a liberal share.

That day we travelled over a miserable road, and only made twenty miles; got lost in the woods towards night, and were compelled to remain the whole night in the wagon, exposed to a fine shower. The next morning we travelled three miles before we found a cabin, to get breakfast, and as we reached our own plain, but neat and cosy house that evening, we most heartily echoed the song,

"Be it ever so humble, there's no place like home."

Yes, how pleasant it is to have a home, be it ever so humble, if it is only surrounded by attractive influences to make it dear.

In Missouri, especially in Buchanan county, the people live in log-houses year after year, and accumulate land and stock. They think it useless to embellish their homes, and a "pi-anna" or well-stocked book-case is scarcely noticed, and certainly scornfully appreciated. Those who have not slaves, the "poor white folks," as the negroes scornfully call them, get up by daylight, go early to the field, work hard all day, and after a hearty supper of bacon and corn-bread, go to bed. When they are not working, they lounge in the whiskey shops, or perhaps get intoxicated. If we wish to reckon the worth or activity of a person, when we say "he is only a Missourian," we had

rather hunt farther for a shoot from some other State.

In Missouri, the crops look better than they do in Kansas, and we hope to get our supplies from there, if ours fail us. Now, we seem to have no money, no crops, no people, no prospects, no anything. But we expect better times, soon.

SUSIE VOGL.

Sumner, K. T., June 25, 1860.

For the New England Farmer.

CULTURE OF POTATOES AND THE ROT.

MESSRS. EDITORS:—Having had not less than sixty years' experience in growing potatoes, and having made extensive research and observation at home and abroad, I beg leave to lay before your readers my views upon the potato rot. The rot does not arise from one cause alone, but from several causes combined. The fault is in man himself, and there is no patent vermifuge that will prevent it.

The first fault is improper cultivation—the soil is robbed of something needful for the plant. The manner of cultivating and keeping, after ripe, is entirely different from what it was formerly. In olden times the soil was newer and more perfect. The plow was put in deeper than some do it now; the seed was pure; the hills were made three times as large; the seed planted on a soft bed and covered a good depth, protected from the atmosphere; they were dug right into a basket and carried to a dark cellar, or they were emptied directly into a pit dug for them and covered with boards or straw, and then earth put on so as to raise a heap that would shed the rain, and in the spring they were fresh and good, like new potatoes.

The cause of more than half the rot of potatoes is mud instead of insects. Forty-five years ago I planted a plot of ground by the side of a millstream with potatoes. The vines were fresh and green, the tubers about as large as hens' eggs, no insect near them—but there came an unusual flood and covered them for an hour, and in 24 hours afterwards there was not a sound tuber in the lot! The same thing happened with me once since, and it has always been so on Connecticut River in case of a heavy flood reaching the tubers. I have been into a field where the owner complained of rotten potatoes, and told him where the rotten ones were, and where the sound ones were, by the situation of the hills; he dug, and found as I said. No sooner do we have a great shower than the word is, I guess this will rot the potatoes. I guess so, too, but it don't rot mine. I plant them in soft, mellow soil, and so that surplus water will drain from the roots, cover them a good depth, and am careful to have good seed, if possible, seed not previously inclined to rot.

If a man has not wit enough to go in when it rains he will get wet, and if he exposes his potatoes too much to mud or to the air, he must suffer the consequence.

The potato is not like the turnip. It requires a dark, cool place. A man on Long Island had dug half his crop on a field of six acres, which were worth one dollar per bushel, and they were all sound—he dug the other half, and they were mostly rotten. The field, cultivating and seed were all the same, and planted the same day; the cause to me is very plain: they were all brought out early in the morning and a part planted immediately; the rest stood in the open air and were planted in the latter part of the day, having the disease in them, which increased and spoiled their progeny.

Another man told me he dug his potatoes and carried one load into the cellar; the other load remained out all night in the moonshine and they most all rotted, while the first were sound! The lunar influence was light and air.

But what is the practice of those who have rotten potatoes? No care is used to have sound seed; the ground is plowed shallow, seed planted on the subsoil, with scarcely earth sufficiently to cover them, and then small hills. A shower comes, and the tubers become muddy, and a hot sun scalds them. When ripe they are hooked out and are one day in the hot sun, and then carried to a light cellar or to market.

PHINEAS PRATT.

Deep River, Ct., July, 1860.

TRIAL OF MOWING MACHINES.—The Providence *Journal*, in relation to the trial of mowing machines in Providence on the 26th, each machine being required to cut half an acre, states, that the "New England Mower cut its allotted portion in eighteen minutes, the Manny's in about twenty-one, Wood's in about twenty-three." On the trial of two horse mowers, Buckeye in twenty-one minutes, Ketchum twenty-three, Wood twenty-five, Manny twenty-seven.

REMARKS.—There are many things beside the mere time consumed to be considered in forming an opinion of the merits of a mowing machine. Indeed, whether a machine will cut an acre in thirty minutes, or in sixty, we consider of comparative little consequence. If it is capable of doing it in sixty minutes, cutting the grass evenly, at a proper distance from the ground, and with a moderately easy draft, it is enough for a one-horse machine. If with two horses, an acre and a half per hour where there is a ton of grass to the acre may often be accomplished.

Rapidity is not so valuable a quality, as *certainty*, and *ease*, so that one can continue in the operation for several continuous hours, if he desires to do so. With a good machine, requiring only a moderate draft, and having a five foot cutter bar, a pair of horses would cut an acre in forty minutes easily. The trouble has been that so much time is required for the horses to rest, and the frequent stops, perhaps just after they have rested, to clean out the clogged knives, or some other obstruction.

☞ Forty years ago, a man at Newburyport placed one hundred dollars in an old stocking, where it remained till last week, when it was disposed of at an advance of four or five per cent. for old silver. If the same money had been placed in the Savings Bank, it would have increased to a thousand dollars.

A MORNING WITH THE BEES.

At six o'clock on Friday morning last we had a call from Mr. R. S. Torrey, of Bangor, Me., a gentleman who has for many years given his undivided attention to the cultivation of bees, and whose success with them, both as a matter of pleasure and of *profit*, has been somewhat surprising. We witnessed some of the results of his skill at the State Fair in Maine last fall, which were quite as gratifying to us, as the liberal profits were to him. The subject was not new to us, —having devoted time and observation to it for several years, we felt competent to look the matter over, and judge whether Mr. Torrey's new hive had points of merit not common to other hives, and we soon arrived at the clear conclusion that it had. Among these points are the following:

1. The form and size of the hive are right, judging from an experience of twelve years with them.
2. The condition of the bees can be seen at any time, in front, in rear, and at the top of the hive.
3. The most scientific and perfect method of *ventilation*.

The merit contained in this particular point surpasses that of any other hive we have examined,—and it is of great importance to the bee-keeper, because a large proportion of all swarms that die in the winter, *die for the want of proper ventilation*. We have lost half a dozen swarms in a single winter from this cause, and have a friend who lost four times that number during the same period.

4. The peculiar arrangement of the platform upon which the hive stands.
5. Arrangement for feeding.
6. No frost or ice in the hive in the winter.

The proper ventilation prevents the frost or ice, and the mode of doing it is as simple and cheap as it is ingenious.

7. A trap which prevents the ravages of moths.
8. No filth or dead bees can accumulate between the combs in winter.

The above are the leading points of merit not common, we believe, to other hives, but it has others—perhaps all others—found in the best,—such as that

The surplus honey can be taken away without disturbing the bees.

Taking it away in boxes.

Changing the combs.

Fighting prevented.

Transferring the bees.

Swarming prevented, &c.

While the hive is exceedingly simple, everywhere, having no changes or subterraneous passages to perplex, it is cheaply constructed, and we have not a doubt will prove efficient. It will be efficient, because its accommodations will correspond with the natural wants of the bee, and render the little worker those facilities which it finds in its normal condition in the forest. It is so simple that a child can understand its construction and the mode of using it, with five minutes' explanation.

We found Mr. Torrey a skilful and judicious manipulator, removing honey and transferring bees with accuracy and ease. So we passed the entire morning, robbing the bees here and there of a portion of their delicious hoard, carrying portions to a weaker family, and giving to others the means of working out some little device not to be found in *their* records of industry!

When our grand Bee-Hunt comes off with Mr. Torrey in the forests of Maine, the reader shall be put in possession of its incidents.

We shall be glad at some other time to state the processes through which he came to the conclusions to form such a hive as he presents to the public. They are new and ingenious, and will be interesting to all lovers of the bee and honey.

For the New England Farmer.

COUNTY AND TOWN AGRICULTURAL SOCIETIES.

Mr. Editor:—Which will best promote good farming, county or town societies? This is an important question, deserving the careful consideration of every farmer, and of all the friends of good farming. So far as my knowledge extends, it has never been publicly discussed in any of the newspapers or periodicals of the day. It is true, that *town societies* have occasionally been mentioned in terms of approbation by the gentlemanly editor of the *New England Farmer*, and perhaps by others, but never in a way to point them out as rivals, in usefulness and influence, to county societies. They have usually been addressed under the homely but modest name of "Farmers' Clubs," but never as taking rank with county societies. The question, therefore, is comparatively a new one. It has never been discussed, or, if it has, it has never been decided. At least, its true merits are not generally known. In order, therefore, to come at this question so as to satisfy ourselves of its merits, without exciting the jealousy and prejudice of county societies, with their vested rights and State funds, it will be best, perhaps, to institute a direct comparison between the different sides of the question; in other words, to throw the question into the great scale of even-handed justice, and see which side of the question preponderates, and which kicks the beam.

Of the *county societies* I need not attempt a particular description. Their character and objects are generally so well known, as to supercede the necessity, and it is no part of my object to berate or to underrate their usefulness. They all exist by legislative enactment. They are all under the patronage of the State, and receive assis-

tance from its funds. Some have existed for about forty years; others are comparatively of recent date. Each society receives about six hundred dollars from the State treasury. In some counties, there are two, three, and even four societies, each receiving the State bounty of six hundred dollars; so that there is a great disparity in the amount received from the State by the different counties—one receiving twenty-four hundred dollars, while others of equal territory, population and business, receive only six hundred dollars. This inequality—this giving four times as much money to one county as to another of equal rank and influence, is the cause of much jealousy and dissatisfaction.

But the chief causes of dissatisfaction with county societies, and those which greatly impair their usefulness and influence, remain to be mentioned. It is not the unequal amount of money drawn out of the State treasury by the different counties, so unjust in itself, but it is the way and manner in which the money is appropriated, and the objects to which it is frequently appropriated, that give the most dissatisfaction.

The State bounty was undoubtedly given with a view to encourage and promote good farming—economical and profitable farming—such as may be denominated skilful and scientific; whereas, it has frequently been applied by some of the county societies to purposes and objects wholly inconsistent with the interests of good farming, and of the several towns in the county. It is sufficient for my present purpose to mention only the manner in which a portion of the State bounty is expended in building up the county towns to the exclusion of the other towns which take no interest in the society; in erecting buildings and other fixtures therein for public exhibitions; in purchasing and grading lands to be kept and used for a public race-course, and thus encouraging horse-racing, with all its attendant evils, by the sanction and authority of the State; in bestowing premiums, not only upon the fleetest horses, but upon the best specimens of female equestrianism, and upon all monsters and prodigies, both in the animal and vegetable kingdom.

If we now turn our attention, for a moment, to the *town societies*, with their cattle-shows and exhibitions, in which the whole population, men, women and children, take the deepest interest, and for the success of which they exert themselves to the utmost, we shall find a very different state of things. They have no funds to lavish on objects of questionable or doubtful importance; no race-course, no fast horses, no fast women to ride them, no monster premiums for any of the monstrosities of nature or art; no, they have none of these things; but, in their stead, they have honorary premiums, or certificates of premiums for all the objects which legitimately come under the heads of good and profitable farming, and of domestic industry and economy.

The number of town societies in the State is unknown to me. They are increasing in number every year, and all very flourishing. The oldest, and perhaps the most successful, in the State, is in the town of Hardwick in the county of Worcester, which has existed for about thirty years. There are no less than three town societies in the county of Franklin, which compare very favorably with the county society.

The question, then, recurs, which will best promote good farming, county or town societies? They both possess the means of doing much to promote good farming. The county societies have, in their hands, the State bounty with which to reward those who excel in good farming; but they have no means of compelling those who happen to live ten, fifteen or twenty miles off to be present at the fair with their stock and produce to witness the exhibition and to listen to the address. Therefore, as we can not bring the people to the cattle-show, we must carry the cattle-show to the people, for their instruction and enlightenment. In this respect, town societies have great advantages over county societies.

Warwick, Mass., 1860. JOHN GOLDSBURY.

AGRICULTURAL SCHOOLS.

The youths at West Point are obliged to perform the duties of common soldiers, and in so far as they understand these, they make the better commanders. A body of these young men would win more battles than three times the number led by ignorance, and commanded by the same quality, however strong or muscular it may be; and the youths of our naval school will be far more efficient seamen and commanders by being taught the practical details and the philosophy of their profession at the same time. The same influence will be exerted on agriculture, when those who do its work are made intelligent by education, or made to feel that they are engaged in an occupation as full of honor as any other.

These schools are not to be established for a class. All who enter them must labor. Agriculture is to be learned in its most minute details, and all idea of degradation in the plow, the spade, the manure heap, is to be utterly excluded. Our country wants a complete displacement of that kind of false pride that leads the young men of the country to imagine there is something too humiliating, too plain and simple, in the operations of a farm for their vaulting, high-stepping ambition—that to rush into cities, to crowd into trades and professions, to live by one's wits, to demean one's self by servility, to learn arts, tricks, cunning, till dishonor too often follows the access of their fortunes, has in it something more gratifying to their self-conceit, more plausible, more flattering to a vanity that has not been made modest by disappointment, or broken by necessity.

Farmers, as a class, know little of any labor but that of the body. Their minds are dulled by toil, and routine and custom take the place of thought. As a general rule this may be true; but it must be borne in mind that necessity haunts them through their lives; that painful, exacting and severe labor are the attributes, and elements their avocation; and beginning, as most of them do, with debt and a small capital, it is an evidence of the most earnest industry, of the hardiest exertion, to meet, to endure and to conquer the weight of incumbrances, the rough handling of mental solicitude, and that array of troubles that beset them in the vicissitudes of the seasons, which lie down with them at night, rise with them with each morning's sun, and move with them step by step throughout their lives. To such men, or the sons of such men, it would be foppery to offer an

education burdened with the refinement of science; they could not appreciate it, and it would be their ruin to accept it. To work is their duty and their necessity; from this there is no escape; and no farm school can prosper, or be useful, even in a small degree, in which the impression of this imperious necessity is not firmly fixed, and the mind of every youth made to feel not only that personal toil is honorable, but that his character, his success and his fortunes rest upon it.

It is schools of this kind we wish to see established; that the class to which we allude may receive such an education as will give them an intelligent view of their profession, in all its details, and lead them to love and to study the high purposes of nature, and all the magnificent objects, she lays lavishly before them. There is no difficulty in establishing schools which may, by courtesy, be called agricultural, where the taste for agriculture may be created and cultivated; where even its practice may form some part of its design. As far as they go, these are valuable; but they are not intended for the working farmer, and it would be unfortunate for him if he entered the walls of one of them. Their design is to give men of liberal means a more extended field of knowledge, to widen their sphere of action; to put them in contact, and make them familiar with the great and substantial basis of the industry of nations. So far they are of great importance, and should in every way be encouraged. But beyond this, they do not avail much. They may form a sympathy for labor, but they do not create a love for it. They may give an esteem for the child of labor, but form no desire to share his toil. They may encourage a love for the country, in itself an immense good; for there is in the depths of every, or nearly every bosom, a poetical sentiment, a natural and irresistible affection that draws men towards rural scenes and rural life; and there have been very few of the best, or most eminent men, the wearied man of business, the harrassed man of care, the perplexed man of thought, who have not, at some time, looked to them as offering all the world can give of tranquillity and repose.

But it is not worth while to establish schools for the development of the poetical sentiment, or to attract men to the country, or to give opportunities, or increase the desire for retirement. To the great mass of mankind life is a stern, practical reality. To very few does it ever offer more than a passing wish, or a fugitive hope, that it may be something else, or something better. No one feels this more than the man of labor; to him there is no other poetry in his occupation than in the increase and amount of his profits; and no one has a more bitter assurance of this than the farmer, who too frequently sees, upon the inclined plane of his fortune, the expenses going up, and the profits going down.

The education to which we allude, and to which we give our adherence, is not one that sharpens the mind, but debilitates the machinery with which it works; nor one that, while it makes agriculture a liberal occupation, at the same time creates a contempt for toil and practice of it. To follow a plow is in fact as worthy as a trade; and to manage a farm requires far more mind, vigilanee, attention and labor than most of the departments of business. It is true that it has enemies to encounter, more generous, and less artful than man; that storms and vicissitudes of seasons, the immediate representations of the powers of heaven, baffle his efforts; still nature is his constant friend, and her smiles lighten his labor, and make it prosperous.—*Quarterly Journal of Agriculture.*

FLY CLOTHS.

The Messrs. CHASES & FAY, 233 State Street, Boston, have made a light and good-looking covering for horses, of a kind of grass cloth, which is cool, and we think ought to be extensively used. We have no doubt that such use would save hundreds of bushels of grain. A hungry swarm of flies preying upon a horse when harnessed and buckled up so that he cannot drive them off, must exhaust his resources in some degree. So if he stand in his stall and kicks the planks upon which he rests, he exhausts his powers, beside spoiling the stable, as he would in travelling on the road or plowing in the field, only it is less in degree.

There are two ways of protecting a horse from flies. One is to keep his stall dark, which the horse would probably object to, if he could speak, and the other to admit a moderate amount of light and then throw over him some light and cool covering, such as we have mentioned. This protection is still more important when the horse is on the dusty road, and occasionally passing through forests where the green flies dart upon the poor beast and bring blood at every stroke. But it is a matter of strict *economy*, as well as a *Christian duty*, to keep all the animals under our care comfortable and healthy.

"A merciful man is merciful to his beast."

For the New England Farmer.

CULTIVATING THE WILLOW.

The vast amount of willow employed in various manufactures, at the present day, renders it expedient to engage in growing it in sufficient quantity to supply the demand, instead of importing it from abroad. The purposes to which the willow is applied, are too numerous to particularize, and some new article made of this material is seen in the market at short intervals. Eaton, in the seventh edition of his manual, published twenty-four years since, describes forty species of the willow, nearly all of which are indigenous to North America; probably many species have been added to the number since that time. It would be remarkable if among so many kinds there were not some adapted to the manufacturer's use. That the climate and soil are adapted to its growth is evident from the abundance which is met with on streams and low grounds in this region. There are many tracts of land which are unproductive, and nearly worthless to the owners at present, which, if planted with the best varieties for making wares of that description, would yield a profitable return for a small investment. O. V. HILLS.

Leominster, July, 1860.

THE EUROPEAN SILVER FIR.

The Silver Fir was esteemed by the Romans for its use in carpentry and for the construction of vessels; Virgil speaks of

"The fir about to brave the dangers of the seas,"

and in describing the scenes of a particular locality,

"Hills clad with fir to guard the hallowed bound,
Rise in the majesty of darkness round."

They also used its wood for javelins, and the Emperor Caligula had an obelisk transported from Egypt to Rome, which required the outstretched arms of four men to encircle it. In England, its wood has been chiefly used for flooring. It often grows to the height of eighty or one hundred feet, raising its dark foliage above any of the surrounding trees, but has no special claims as an ornamental tree. It requires a comparatively low situation, and a deep, rich soil, though it sometimes grows well on heavy clay. Its roots, like all the pine tribe, do not penetrate the soil deeply, but spread themselves extensively near the surface. and are, therefore, easily affected by drought.

HILL AND FLAT CULTURE.

When our attention, many years ago, was first called to the subject of flat culture, we determined to give it a fair trial by the side of the common system, noting carefully time, labor, and general results. We began with corn, then beans, next potatoes, etc., and with results so satisfactory, that we at last adopted the principle of drawing earth up to no plants, except for the purpose of blanching. After considerable experience, we do not hesitate to give "flat culture" a distinct approval. It is the system for our dry atmosphere, warm sun, and frequent droughts, as the hilling system may be the best for the moist climate and wet soils of England, especially where those soils are undrained. Both systems have their advocates those of the hilling system preponderating; but the other is making its way, slowly but surely, and we have no doubt it will at no distant day meet a hearty approval throughout the country. The advocates for "hilling' principally claim that it "retains moisture," "decreases the evaporation," and "strengthens" the plant, but how they do not explain; but we question the truth of these points. It is manifest to us, and it accords with observation, that a plot of ground with a level surface kept well pulverized, will retain a more uniform degree of moisture than one broken into hills. It is precisely in a time of drought, when we are dependent upon the small amount of moisture contained in the atmosphere, that the advantages of "flat culture" make themselves manifest. The leaves of plants condense the moisture of the atmosphere, and in different modes shed it on the ground, but principally by means of the stalk. Now if we take corn, for example, which has been hilled, this moisture, so much needed, is thrown off from the plant, and very little is absorbed; in fact, these hills and ridges make good water-sheds, and, becoming baked during dry weather, lose the power of absorption. Where flat culture prevails the soil can always be kept open and porous, and its absorbent powers more fully retained. In regard to "decreasing the evaporation" by hilling, it is so transparent that evaporation is increased by the operation, that we leave that point without further comment for the present. It is well understood that hilling and ridging were introduced to get rid of surplus moisture. Hilling, also, it is said, "strengthens" the plant, the word being generally used in a mechanical sense; for example, it is contended that corn, when hilled, is less liable to be blown down. We know, however, that such is not the fact; and, so far as maintaining an erect position is concerned, facts are all in favor of flat culture. Paradoxical as it may seem to some, corn that has been hilled will blow down sooner than that which has not; and when both are down, that which has been grown by flat culture will soonest and more fully recover itself, because it has less resistance to overcome.

But we must now be content with stating what we conceive to be the advantages of "flat culture" as compared with "hilling," leaving details for another occasion; these advantages are principally

the following: It demands less labor for a given amount of results; it admits of a more thorough cultivation of the soil; it lessens the evils of drought; it admits of the continued use of the best improved implements of culture; and, not among the least of its claims, it presupposes a thorough preparation of the soil, etc. Hilling, undoubtedly, has its place and its advantages, and these are chiefly found in a moist climate and a wet, heavy, undrained soil. Flat culture, we think, will prove the system for our climate, and improved modes of culture. Let it be more commonly tried, and adopted as its advantages may seem to warrant.—*Horticulturist.*

For the New England Farmer.

GROWING WHEAT---AMMONIA, &c.

Passing food through the body of an animal does not increase its ultimate fertilizing power; it adds nothing more to it for plants, at least for wheat, than the food which the animals consumed. It is contrary to nature to use plants which are capable of sustaining animal life, for the purpose merely of furnishing food for other plants.

Fertilizing matter furnished by decayed clover is not as appropriate food for wheat as the droppings of animals that live on clover. It contains too much calcareous matter, the very matter which animals need to keep up the heat of their bodies and to form fat, and which, when the clover is fed to animals, is "burnt out" while the nitrogen remains in the form of ammonia, or in compounds which readily decompose and form ammonia. This is what we need most. It not only increases the crop, but up to a certain point accelerates early maturity.

These remarks will also apply in some degree to poor strawy, leached, weathered manure. There is not enough ammonia in a ton of such stuff as many farmers call manure to make hartshorn enough for a lady's smelling-bottle. Instead of plowing in so much clover for wheat, then, let us convert it into beef and mutton, and if we can give our sheep peas or beans or oil-cake in addition, it will tell wonderfully on the manure and on the crops to which it is applied.—*Joseph Harris's Yale Lectures.*

Now, in the first place, on what principle it is that Mr. Harris can have seed pass through the body of an animal, unless it becomes thoroughly masticated and digested, I am not informed. Yet it would appear by this remark that he had found out some canal through the body of an animal whereby food could go through without digestion, or only partly masticated. We are also told that this operation adds no fertilizing powers to the food thus passed through; but that the droppings of animals are a more proper food for plants, at least for wheat, than the food which the animals consumed. Again, how it is that he separates this plant food, after it once enters the animal's stomach, from the after droppings, is a matter not made quite so plain as wanted.

We are also told that it is contrary to the economy of nature to use plant food to sustain plants that are capable of sustaining animal life. To which we beg to say that we are not aware of any ordinary plant food that is not fully capable of doing both; that is, sustaining both plants and animals, as may be. As to the economy of the two plans, both have their proper places and effects; a heavy crop of clover turned under, or of buckwheat, might create what the farmers call a "vinegar soil," in making too much acid for the wheat crop. As a general thing, however, no great failure need be feared from this plan of turning under clover for the wheat crop. I should prefer to put on animals to feed the clover down through the season, either for grain crops or any farm crops to follow. But we are told, also, that what is most wanted in the wheat crop to carry it out, and to ripen it early, is ammonia. Very well. And also, there is not much danger of our getting too much of this ammonia for the wheat crop. Now, let us see what Dr. Webster says: "Ammonia, volatile alkali, a substance which in its uncombined form exists in a state of gas. It is composed of three equivalents of nitrogen and one of hydrogen." This is all that Dr. Webster says about this most tremendous word in agricultural science, namely, ammonia; not a very pleasing explanation for working, practical farmers to get through their heads, at best.

In fact, the term when applied to agricultural science in combination of plant life, is rather a vague affair for the practical man. In fact, our idea is that when the practical man has studied the character of his soil as to wheat-growing, that all the ammonia that is necessary for to catch and measure in a thimble, will to him be of no consequence on wheat-growing. As to how much ammonia might be found in a load of straw or weather-beaten manure, is a point we shall not cavil about. The lady could take her salts bottle to this manure heap to be filled, or to the druggist, as she liked. Again, we are told by a certain writer on "Irrigation" by rain-water, that what causes the grass to grow where the water runs out of the street in a rainy day, is, that the young grass picks up the ammonia from the rain-water. And this is what he calls "irrigation;" also, soil washed from the woods and hill lands down on to the meadows in a rainy day, is irrigation.

The first of these we should call "road-wash," the second "land-wash" from the hill-sides.—Now, letting the ammonia in rain go as it may, our idea of the fine growth of grass caused by rain-water is, that the fine particles of soil and droppings of animals from the street washed on to the grass, cause this grass to grow heavy as far as this muddy wash reaches. But irrigation proper means living running water from brooks, ponds or lakes, conducted on to the meadows, through the season, as wanted. This writer claims that running water from hard or lime water countries, is not good for the grass, but rather an injury, and only water from soft water streams is good for irrigation. Our idea is that all running water is good for irrigating grass lands, but that the soft water streams are much the most valuable for growing grass and for general soil improvement.

Again, as to the best plan and most economical for improving poor lands that are capable of being plowed well, I have but one opinion, namely, that it can be done at a much faster and cheaper rate by the use of the plow, and by grass seed sown and the grass turned under, than by keeping cattle on the soil to feed down what little poor grass grows on such thin soils. It may be true, that on such thin soils at first the cultivated grasses may not grow. In that case, a crop or two of buckwheat and oats of equal parts sown together, and then plowed under, would improve the poor soil so that grass seed after it would take. The oats sown with the buckwheat would have a tendency to correct the acid in the green

buckwheat, so that the soil should not become too sour by turning under the green crop.—In thin sandy soils that will drift by the winds for want of vegetation on the surface spurrey might be sown or planted. This plant is now grown extensively in Flanders and other European countries; the roots spread in a tangled mass together, so as to hold the sand and thus help to form a soil. That sandy drift on North Haven (Ct.) plains would be a good place to try the value of this plant.

After grass had got a fair start on thin soils, then cattle and sheep could be put on, which will improve soils constantly. In plowing under a heavy crop of clover for wheat or any grain or farm crop, instead of turning it under when in the blow, I think it would be better to wait till the crop is about half ripe, or half the heads are dead. In this way a good share of the acid would have left the stock, so that decomposition would readily take place without at all souring the soil.

Derby, Ct. L. DURAND.

For the New England Farmer.

IS THERE ANY PROFIT IN FARMING?

MR. EDITOR:—Having read T. J. Pinkham's views under this caption, some months since, in the *Farmer*, I felt inclined to answer; but having worked on a farm for sixty years, my sight imperfect, and my hand somewhat palsied, I wisely left the pleasing task to younger heads and hands. I think the answer has been well given. But as Mr. P. has come out in your last issue with a somewhat clenching rejoinder, and called earnestly for figures, I will endeavor to give some facts which have fallen under my notice.

Sixty-four years ago this present winter, I was born in a small log-house, covered with bark, and a hovel of the same materials, and sheltering a cow, our only stock, occupied the exact spot where I sit writing. On this piece of land, consisting of 100 acres of forest, my father, with no capital but a firm constitution and strong nerves, converted this forest into a farm, on which he reared his family of five children, and gave them such an education as the stinted facilities of that time afforded. Forty-two years ago, my father sold me this farm for $1000, and personal property considered worth $500, for which I was to pay $750 to my brother and three sisters. With the remainder I was to erect buildings, fence and stock the farm, and provide for my parents, at that time verging on the helplessness of age.

Now I would respectfully ask friend P. if this can be accomplished from tilling the soil, and cultivating this small farm alone? And can it be kept in a good state of cultivation without foreign manures? And if so, is not farming, even on a small scale, at least a living business?

Now for facts! And here let me say that every dollar has been drawn from this one source, *labor on the farm.* In the first place, I paid the debts to the heirs, and to my aged parents; have erected buildings, and have added some 30 acres of land. This farm, which is now occupied jointly by myself and son, who is still a young man with a young family, is worth four times its value at the time it came into my hands. For the last twenty years it has paid a small yearly profit; so that we have invested in land, stocks, &c., a sum equal to $5000. This is not an isolated case. I live in a town of small farmers; the present occupants have inherited their farms from their sires, who broke the forests, while some others have, in their younger days, worked for wages, until they had obtained a sum equal to the price of a wild lot, of fifty or one hundred acres; while still others have purchased their land on credit. These have made their farms, and many of them are now independent, and have laid by something effective for sickness or old age. I have in my mind an individual who worked with one of my neighbors for $10 a month, some years since; his wife also was dependent, for her means of house-keeping, on her weekly earnings, and neither of them had a shilling but the earnings of their own hands. What is now their condition? They have a fine productive farm, with good, convenient buildings; a stock of cattle and horses, that any man might be justly proud of; he has given his three oldest children an academic education, and has recently purchased and paid for another farm.

These are a few, out of many encouraging results of farming on a small scale, without capital; without the aid of foreign manures; without the aid of science, except that gained by hard experience. I am aware that farming in the old town of Chelmsford is a different business from what it is in northern Vermont. But I would ask friend P. if he knows how much his town paid for their poor farm, on the old turnpike road, some thirty years since, and how much money it has put in the town treasury, after paying for itself in the first eight years; and whether this was the result of the profit of the orchard and wood lot? My own experience, from a long life of toil, with a proper proportion of draw-backs, from frosts, unfruitful seasons, and the multiplicity of ills that attend farming, as well as other callings, teaches me that farming has its proportion of blessings and encouragements, and if a fortune can not be made as rapidly as by some other calling, still it is a paying business; and though the farmer's progress is slow, it is sure. "I have been young, but now am old, yet have I not seen the *industrious, prudent, temperate farmer* forsaken, or his seed begging bread." J. MUDGETT.

Cambridge, Vt., Dec. 17, 1859.

SEAWEED FOR MANURE.—From the able pen of S. P. Mayberry of Cape Elizabeth, in the report of the Secretary of the Board of Agriculture, in the *Maine Farmer*, is an article upon seaweed—its uses on the sea as well as on land. I agree with Mr. M. on the value of seaweed as a manure. Almost every farmer on the coast, if he would take four parts of rockweed to two parts of his barnyard manure, two parts of muck, have them thoroughly mixed by swine, then piled up to heat, can produce more from his farm, and at one-half the expense, than he can by using any of the high-sounding fertilizers which are recommended in most of the papers. On five-eighths of an acre I cut three tons of hay the first crop It was done by composting the manure. I would not plow in manure to raise grass, more than three inches; dress it with a light coat of top-dressing every year, and you will have large crops of hay.

ON SHOEING HORSES.

Blacksmiths, like persons engaged in other occupations, are not always good workmen merely because they stand by the forge and smite the hot iron. Another person, who never passed half an hour in a smithy, might explain the true principles of shoeing better than he who has passed a lifetime in the actual practice of the art. It is not the hand, but the *head*, which makes the skilful and accomplished workman; and no men in the world are so tenacious of their opinions as those who have been practicing under an error all their lives. They will not listen to the philosophy of the matter which they assert, for the reason that their habit of mind has never run in that channel. These remarks apply equally to other trades, and to teaching and farming. Many of the best farmers in our knowledge, men whose principles and practices run together and produce the most profitable results from the capital employed, are retired merchants, artisans, shipmasters or ministers; and many of the most slovenly and unskilful farmers in our knowledge are those who were born and brought up on a farm, and never engaged in any other occupation! It is *mind* that makes the man, the blacksmith, the carpenter, seaman, or anything else of this nature,—not the fact that the man has been engaged in the occupation for thirty or forty years.

These remarks are suggested by reading an article in the Manchester (N. H.) *Mirror*, upon the subject of horses and horse-shoeing. The lively and versatile editor of that paper knows a thing or two about horses himself—and he is determined that all the rest of mankind shall know as much, if he can only get it out of the smiths, and the world will read his paper. We hope he will succeed in securing both—for the horse-knowledge is greatly needed, and the *Mirror* is no lag-behind, but a living, moving hebdomadal, that will wake the reader up, and be useful to him, unless he is dreadful sleepy!

But without some of friend Clark's expurgations, emendations, additions, alterations and corrections, we doubt whether his "hundreds of letters from smiths already received" will elucidate and settle the knotty question, how shall a horse be shod? As a sample of these letters he gives one from Bristol, which he says is "sensible and practical for the most part, but its theory of shoeing interfering horses will be controverted by high authority." The same letter goes on to tell us how over-reaching horses can be made to travel clear by shoeing. He says—"This is not so well understood by blacksmiths, generally, as interfering. Long shoes should be used in order to remedy this; the forward feet should be pared low at the heels, and leave the toe so as to cause the foot to rise at the heel and give the hind feet a chance to shoot under as the others rise. The hind shoes should be set on as usual, but should be made with a heavy toe, and turned to give the forward one a chance to get out of the way."

As we understand this matter, the exact *reverse* of this teaching is the philosophical view of it. For instance: a horse strikes his hind foot against the forward one, because the forward foot is not taken away quick enough. What is the remedy? Certainly not to have the forward feet *"low at the heels,"* for that would keep the foot down longer and make the interference worse. Nor is it desirable that the hind foot should pass *under* the forward one. To prevent over-reaching, then, try this plan, which can be done without paring the hoof at all. Make the *heel* calks on the forward shoes a little *longer* than usual, so that, the foot being raised a little behind, the horse will take it up quicker than he has been accustomed to. Now make the *heel* calks of the hind shoes a little lower, and what is gained by accelerating the forward foot and keeping back the hind one, will give time to get the fore foot out of the way, and there is no more over-reaching. We have cured very bad cases of over-reaching by this simple process, and never knew it to fail when properly attended to.

We have as much faith in the skill of blacksmiths in their business as we have in that of those engaged in other occupations, and the more of them that read this article the better, if it only leads them to regard *principles* more and *theories* less.

THE REARING OF THE HIPPOPOTAMI.

The managers of the Jardin des Plantes in Paris have had a series of bad luck in the rearing of hippopotami. Their maternal hippopotamus has now given birth to three young ones, but each has been lost when but a few days or weeks old; one, if not two, were killed by the mother, and the last, saved from a similar fate by immediate removal, died with convulsions brought on by teething. The circumstances are given with affecting detail. The birth was on the 18th of May, and the infant animal (a male) was received on the brink of the basin of the rotunda, in the arms of his keeper, and immediately taken away. The maternal hippopotamus had no time to see her offspring, and yet she indulged in a long fit of anger. Without the aid of an enormous whip with which the keeper was furnished, he could hardly have secured his retreat, but by its aid he succeeded in getting out of the basin and shutting the grate behind him. The young hippopotamus was placed in a basin exposed to the sun, and he immediately took to swimming and splashing about as though he had taken lessons from his father and mother. He was fed on warm cow's milk, which he drank with avidity; in four days he consumed nearly three gallons of it. He slept a good part of each day on a bed of straw

covered with a flannel blanket; the rest of the time he amused himself in a basin of warm water. His keeper, who did not leave him for a moment, could not make the least movement but his nursling would open his eyes enough to assure himself that his adopted father was not going to leave him. At night he slept with his head on his keeper's breast, and slept well until daybreak. When he wanted to drink he roared like a calf, which indeed he somewhat resembled in form. He measured about four feet in length, and weighed 130 pounds at birth. His skin, soft moist and mellow to the touch, had nothing of that rose-tint which characterized the two other hippopotami born in the menagerie in 1858 and 1859. It was blackish in some places, and in others of a grayish-white. There was also a very queer orange tint about his lips. On the 2d of June it was noticed that several teeth were coming through. While they were wondering at this precocity, the poor animal was taken with convulsions, and died in a few minutes.

For the New England Farmer.

FARM HINTS AND FARM FACTS.

Never set out an orchard with a view that in future time it will take care of itself. Remember first to subsoil, and like your hills of corn and potatoes, manure the land heavily from season to season; plant with potatoes or carrots to keep the earth mellow; avoid a grain crop, as in ripening, it reflects too intense a heat for young trees. This was my experience in a winter wheat field two successive years.

Never plant trees on poor soil, and expect thrift with large fruit.

Never crowd your trees, which is a very common error. Calculate their spread when fully grown, so that a good crop of hay may be taken off. Give them the full range of sun and atmosphere.

Never cultivate caterpillars instead of apples—the crops are uncongenial. One is money in the pocket, the other dirty, destructive and unprofitable. Give the farm boy a penny a nest, start him with the rising sun, and my word for it, his eagle eye and love for pennies will clear away this orchard-pest, and return to you five dollars for every penny out of pocket. They are easily seen when the nest is found.

Never cease to fight the canker worm; while the lion and tiger are easily slain, this inferior creeping thing has successfully battled and outgeneralled the whole staff of horticultural wisdom. Would not the fumes of fire and brimstone mixed with tar be a good application when the worms are feeding?

Never move among young trees without a heavy jackknife in your pocket, and an eye upward to redundant limbs; cutting here, sawing there, and giving shape early for the future, always remembering that the displaced limbs and twigs are by root and sap made up at once to the remaining branches. The Porter or Northern Spy incline to spiral or distaff tops; the Greening and Russet to spreading branches; the Baldwin and Hubbardston Nonsuch to close brushy tops. Here the pruner must exercise judgment; how much easier to gather fruit when the tree is well opened, how much larger and fairer the fruit! It is the sun that draws out the full blush and gives the full flavor. Prove this by eating the apple or peach from the sunny or the shady side.

Never cultivate shade trees in your fields by the road-side,—rather make them fruit trees, that blossoms and fruit may charm the traveller and reward the farmer with a good round income. Anything out of place is not ornamental. Give the shade tree a place in the roadway and around your buildings, especially; it shows taste and refinement. The New England towering elm is the unrivalled emblem of majesty.

Never neglect the little quince tree that can grow in niches and corners; cultivate it as a tree, and not as usual, as a bunch of bushes. A fine stone wall interlined with a quince tree hedge at eight feet distances is highly ornamental and profitable. How easy to grow quinces.

Never forget the birds whose music awakes you at early dawn, and who sing you to sleep in the late, lingering twilight. Give the robin an extra cherry tree and a strawberry bed. Build a house for the wren, the martin and the swallow; help them to feed their twittering young. How much are they daily helping you! Cultivate their (and all birds,) acquaintance socially, not as enemies, because their tastes are so refined as to love your strawberries and cherries.

The crow offends by pulling up your corn, yet he is the unpaid scavenger in removing offal and numerous vermin that annoy you. The hawk affectionately dips into your chicken brood, showing a decided relish for uncooked poultry, but he had been hunting and sailing all over your premise for snakes and mice to satisfy his hunger, and found none.

The owl robs your hen roost in the blackest night. Educated thieves go to prison for this same offence. Which of the two are the better members of society? H. POOR.

Brooklyn, L. I.

For the New England Farmer.

PROFITS OF FARMING.

MR. EDITOR:—From careful reading as well as observation, I have come to the conclusion that there is some fallacy in the manner by which farm accounts are kept, or the way in which the different operations of the farm are passed to debtor or creditor. How, otherwise, are we to account for the very different conclusions to which some writers come, on this subject? That the farmer, with a fair sized farm, free from debt, with ordinary buildings, stock and tools, is among the most independent men which this world can show, ought to be plain to all. That he has every means at command for getting a good living, and sustaining his family respectably, and often putting by something for old age, or a rainy day, is a generally conceded fact, and it is patent to any observer of this very large class throughout the country, especially in New England, where if anywhere in the United States, farming is hard work. That there are thousands of this class, whose area of land is less than one hundred acres, who so manage thus to live, and who are in more senses than one the right arm of the State, is another fact. That they have to work hard, and

practice rigid economy, I do not deny; but that they live respectably and comfortably, some few, indeed, luxuriously, go to meeting with good clothes on, with wife, sons and daughters well and fashionably dressed, with horse and carriage, good enough for a lord; whose families are mentally, as well as bodily, well cared for, is another fact, which any person may prove for himself, by attending church on the Sabbath, in almost any of our country towns.

If, as some who have lately written, as published in the *Farmer* within a short time, say, the farmer does not, or cannot, make a living by attending solely to his legitimate business, that it is a non-paying pursuit, how is it, or why is it, that these things are so? Here is a fair and large field for investigation. If farming, as generally practiced in New England at the present day, is a non-paying business, contrary, it seems to me, to the common idea, then let us know it, and have a fair understanding of the whole matter, so that none may "go it blind," or spend his strength for naught. That the majority of farmers are not so particular in keeping a correct account with their various operations, I am willing to admit. I think they would find it interesting and profitable to do so; at any rate, they could at any time ascertain their exact standing with the world, and with their different operations, and self-interest ought to prompt them to do this. Why should they not do so, as well as the trader, manufacturer, lawyer, or doctor? Certainly their operations are no more complicated than theirs; while, if they kept such an account, all guess work would be removed, and the farmer would be able to tell at a glance, what branch of his business paid and what did not, much better than under the old system of going by the guess book. But that farming does not pay, and is poor business to follow in order to insure a good living and fair profits, I am not willing yet to admit. I concede there may be poor farmers, as there are poor doctors, &c., and until the majority of farmers cease paying their debts and go into insolvency, I probably shall not. Let this matter be fully discussed, and individual experience brought to the test. I am open to conviction. Give us your ideas on this subject, brother farmers; facts will settle this matter, I think, much sooner than any theory, or statement. NORFOLK.

King Oak Hill, 1860.

THE IDEA OF FIRE AMONG THE ANCIENTS.—According to Pliny, fire was for a long time unknown to some of the ancient Egyptians, and when Euxodus, the celebrated astronomer, showed it to them, they were absolutely in raptures. The Persians, Phenicians, Greeks, and several other nations, acknowledged that their ancestors were once without the use of fire, and the Chinese confess the same of their progenitors. Pompanius, Mela, Plutarch, and other ancient authors, speak of nations who, at the time they wrote, knew not the use of fire, or had but just learned it. Facts of the same kind are also attested by several modern nations. The inhabitants of the Mariana Islands, which were discovered in 1521, had no idea of fire. Never was astonishment greater than theirs, when they saw it on the descent of Magellan on one of their islands. At first they believed it was some kind of animal that fixed to and fed upon wood. The inhabitants of the Philippine and Canary Islands were formerly equally ignorant. Africa presents, even in our own day, some nations in this deplorable state.

For the New England Farmer.

WATER PIPES.

MR. EDITOR:—As there have been several inquiries in the current volume in regard to pipes or tubes for conveying water to farm buildings for the use of the stock and domestic purposes, I thought to add a few words.

As good pure water, and a constant supply, too, is very important, and as but few farm buildings are so situated as to have a full supply in the right places till it is conveyed there through some means, it becomes an important question, what shall we use for this purpose?

My experience has been with wood and lead pipes, or as they are called here, "aqueducts," wooden or lead, as the case may be. Lead was formerly used quite extensively by those of competent means, till it was found to be very liable to get out of repair, and injurious to those using the water which was thus supplied, however healthful it was at the fountain, generally. Yet to this day it seems, by your columns, some deny the deleterious effects imputed to the poisonous lead; though perhaps difficult of demonstrative proof, yet experience of the many, and analogy, ought to be sufficient warning to one and all against lead pipe. The wood generally used is fir, spruce, pine and hackmatack or larch; but were I to have my choice, it would fall upon the larch.

Timber should be cut in the fall or early in the winter, and in size six to ten inches in diameter, and of such a length as can be handled and bored conveniently, say about 10 feet. The bore should not be more than 1½ inches, instead of 3 to 4 inches, as one correspondent recommends, because the water will not stand in the logs near so long before it is used after leaving the fountain head; they will last longer, are much easier bored of this size, and are not near as liable to freeze up in "cold snaps," like January, 1859. The beautiful, lively sparkle of the water in the fountain is retained only through constant change; hence the smaller amount confined in the conducting pipe, of any kind, the better will it come from the faucet.

In regard to durability there will be a great variation, even with the same kind of wood, in different situations. I have seen fir logs that had been laid 20 to 30 years, that were then in good repair, and I have seen them where they had been laid but 10 years, so decayed that it was necessary to relay them, or put new logs in. Those which had lasted so long were in soil that kept them wet or moist all the time, while the others were wet and then dry at times, or nearly so, being in a yellow, ledgy soil.

The cost will vary materially in different localities. Here in Franklin Co., Me., it costs twenty-five cents per rod for boring and laying, upon an average, when done by those who are responsible for a good job, beside boarding the hands. The cost of the logs, digging, trenching and filling, according to local circumstances. O. W. T.

Elm Tree Farm, Maine.

WIND POWER FOR GRINDING CORN.

Having suffered much inconvenience in getting corn ground at a distant mill, and being dissatisfied with the corn, and cob, and grist mills, advertised, I fell back on my own resources, and after some preliminary experiments, I fixed a mill as follows. It is successful:

I cut off a post oak 11 feet from the ground, and made a 6 inch tenon, 5 inches diameter on top; split out a puncheon 7 feet wide, 5 inches thick; 3 feet from one end I mortiсed a hole to fit tenon on tree, and mounted it to its place; 18 inches from centre of tenon, on each side nailed pieces 4 feet long, 6 inches wide, 2 inches thick, fore and aft the tree and parallel to it; a piece of the same dimensions fixed on to lower ends of the same, horizontal and parallel to puncheon, on both sides, and reaching aft to end of do., braces from each end of puncheon to meet these at the lower end of perpendiculars on both sides, completes a firm and strong frame which revolves on tenon; transverse pieces on each side the tree, fore and aft, bind the sides together, and if they project a little, form a support for a plank to stand on.

Now for the shaft. A piece of pine 7 feet long, hewed to 8 inches square, and the corners taken off, an iron band on the end for the hub, divide the circumference into six, the number of arms, which gives a distance of 60 degrees, and four inches from the band, mortice three holes 2 inches square, through the hub; then cut out a neck 5 inches diameter, and 5 inches long. Get two pair of friction wheels, such as are used for a grindstone; screw one pair down to front end of puncheon, and the other at after end of shaft, for the shaft to run on; nail a collar on the end of puncheon to fit loosely on to neck of shaft, just in front of friction wheels—it is not to bear any weight, but merely to keep the shaft from jumping off. Of course, the after wheels have a neck of the same dimensions. The mill is bolted on to a short post, fixed on to after end of puncheon at right angles to it; the axle of the mill is received into a square hole in a plate screwed on to end of shaft. As the mill requires to reach somewhat over the puncheon to obtain firm support, the shaft must be fixed accordingly; a hole through the puncheon conducts the meal, in a sleeve, from the spout of the mill to a barrel or bag placed on the stage beneath.

Thus, it is is easily seen that the whole power of the wind acts on the grinding surface of the mill *directly*. Three pieces of well seasoned scantling 2 x 2 inches, well balanced and fitted into mortice holes, making 6 arms 8 feet long from centre to hub. Strong domestic, 5-4 wide, and 5 yards long, making a square, which, cut cross cornered, will make the two sails and a sleeve to each to fit the arms; which may thus be put on and off readily. The edges should be strongly hemmed and drawn somewhat tight, so as not to flap; the corner tied to the next arm by stout string. This will be found power sufficient to grind in a light wind; if the wind is strong, three sails only need be spread.

With such a wind-mill I have ground meal for the house—have fed five horses and six hogs on meal too.

I consider the saving of feeding horses equal to one-third—certainly one-fourth. A wood hopper to contain one bushel of corn can be attached; then the farmer can wedge his mill in the right position and go on with his work, having the satisfaction of hearing his corn crack half a mile off! If we had an improved steel mill to the common hand mill it would be an advantage. One to stand like a clock, for instance, and to screw down to puncheon.—*Southern Cultivator.*

USEFULNESS OF SOOT.—This article is often wasted, being thrown into the ash-heap, or dumped on the ground at the back door, and no use made of it. Both science and experience show that it is a valuable manure. If used as a top-dressing to grass, it produces a marked effect. When sown broadcast, some of its ammonia becomes volatilized, and is wasted in the atmosphere. Therefore, it should be mixed with water, and applied as liquid manure. Twelve quarts of soot to a hogshead of water make a powerful fertilizer.

LADIES' DEPARTMENT.

MATRIMONY SANS PATRIMONY.

"I am a clerk, with eight hundred dollars salary, and yet my wife expects me to dress her in first-class style, What would you advise me to do—leave her?" These words I unintentionally overheard in a public conveyance. I went home, pondering them over. "Leave her!" Were you not to blame, sir, in selecting a foolish, frivolous wife, and expecting her to confine her desires as a sensible woman ought, and would, within the limits of your small salary? Have you, yourself, no "first-class" expenses, in the way of rides, drinks and cigars, which it might be well for you to consider while talking to her of retrenchment? Did it ever occur to you, that under all that frivolity, which you admired in the maid, but deplore and condemn in the wife, there may be, after all, enough of the true woman, to appreciate and sympathize with a kind, loving statement of the case, in its parental, as well as marital relations? Did it ever occur to you, that if you require no more from her in the way of self-denial, than you are willing to endure yourself—in short, if you were just in this matter, as all husbands are not—it might bring a pair of loving arms about your neck, that would be a talisman amid future toil, and a pledge of co-operation in it, that would give wings to effort? And should it not be so immediately—should you encounter tears and frowns—would you not do well to remember the hundreds of wives of drunken husbands, who, through the length and breadth of the land, are thinking—not of "leaving" them, but how, day by day, they shall more patiently bear their burden, toiling with their own feeble hands, in a woman's restricted sphere of effort, to make up their deficiencies, closing their ears resolutely to any recital of a husband's failings, nor asking advice of aught save their own faithful, wifely hearts, "what course they shall pursue?"

And to all young men, whether "clerks" or otherwise, we would say, if you marry a humming-bird, don't expect that marriage will instantly con-

vert it into an owl; and if you have caught it, and caged it, without thought of consequences, don't, like a coward, shrink from your self-assumed responsibility, and turn it loose in a dark wood, to be devoured by the first vulture.—*Fanny Fern.*

DOMESTIC RECEIPTS.

To Put up Cucumbers, Melons, Tomatoes, Peaches, &c., for Pickling.—As good vinegar is not always at hand, the best way is to prepare a brine in a tub or barrel, and save your pickles as they grow. The brine should be made of common salt and water, and strong enough to bear an egg. When the tub is full of pickles, allow the brine to cover them; then cover them over with cabbage leaves, and a board and weight to keep them in the brine.

They should be soaked in fresh water three days and nights before using to extract the salt, frequently changing the water. The great art in making good pickles is to have good vinegar. The best vinegar for pickling is made of apple cider. After your pickles are sufficiently soaked, put them in a brass kettle with vinegar enough to cover them, and scald fifteen or twenty minutes, put them in jars, and pour hot vinegar over them; flavor them with cloves, black pepper, an onion or two, and a little horse radish and ginger. For making mangoes, the filling should be made of nasturtiums, small beans, small cucumbers, onions, white mustard, horse-radish, allspice, black pepper, mace, cloves and ginger; tie up a tea-cupful of turmeric, and put it in a jar; after being stuffed and tied up, they are made as cucumber pickles.

To Make Rhubarb Wine.—Trim off the leaves and grind and press the stalks in any cider or other mill. To each gallon of juice, add one gallon of water, and six pounds of refined sugar, and fill the casks, leaving the bungs out. A moderately cool cellar is the best place to keep it. Fill up occasionally, either from juice kept on purpose, or with sweetened water, so that the impurities which rise to the surface while fermentation is going on, may be worked off. When sufficiently fermented, which will require from one to two or more months, bung tightly, and let it remain until winter, when it may be racked off into other casks or bottled. Some persons refine it before bottling, by putting into each barrel two ounces of isinglass, dissolved in a quart of wine. —*American Agriculturist.*

Soups.—Soups, when properly made, are very wholesome, and an almost indispensable appendage to a dinner. But how few cooks know how to make it wholesome and palatable. To prepare good soup requires more skill and labor than almost any other principal dish, and few ever learn, and those who know how, seldom go to the trouble of making it right. In a majority of families —we are safe in saying nine out of ten—really good soup is never eaten, or soup that is not indigestible. They think that to be good, it must look very yellow, and made so by half an inch of grease on the top. Now, the truth is, there should be little or no grease about soup. It should be made of lean meat boiled, or rather simmered, for a long time—say half a dozen hours—and then strained and boiled again. A little brown flour, prepared as the Germans do for their "burnt meal soup," gives it a dark color. Some add a little sugar. Above all things, keep away grease from soup, commonly known as "fat," if you want the soup to digest in the next six or eight hours.

Delicious Veal Cutlet.—First take your cutlet and beat it with the flat side of the cleaver or rolling-pin. Beat it for about five minutes, then, having thrown a quantity of butter, eggs and flour into a frying-pan, when the mixture is hissing hot, put your cutlet in, and there let it stew. The mixture will penetrate to the core, and is imbibed in every part.

To Destroy Flies.—To one pint of milk add a quarter pound of raw sugar, and two ounces of ground pepper; simmer them together eight or ten minutes, and place it about in shallow dishes. The flies attack it greedily, and are soon suffocated. By this method, kitchens, &c., may be kept clear of flies all summer, without the danger attending poison. We copy this from an anonymous source. It is easily tried; and if effective, will be valuable.

Cure for Corns.—Take two ounces of gum ammoniac, two ounces of yellow wax, and six drachms of verdigris; melt them together, and spread the composition on a piece of soft leather or linen. Cut away as much of the corn as you can with a knife before you apply the plaster, which must be renewed in a fortnight, if the corn is not by that time gone.

LADY JANE GREY'S CHARACTER.

Jane Grey, eldest daughter of the Duke of Suffolk, was nearly of the same age with Edward. Edward had been precocious to a disease; the activity of his mind had been a symptom, or a cause, of the weakness of his body. Jane Grey's accomplishments were as extensive as Edward's; she had acquired a degree of learning rare in matured men, which she could use gracefully, and could permit to be seen by others without vanity or consciousness. Her character had developed with her talents. At fifteen she was learning Hebrew and could write Greek; at sixteen she corresponded with Bullinger in Latin at least equal to his own; but the matter of her letters is more striking than the language, and speaks more for her than the most elaborate panegyrics of admiring courtiers. She has left a portrait of herself drawn by her own hand; a portrait of piety, purity, and free, noble innocence, uncolored, even to a fault, with the emotional weaknesses of humanity. While the effects of the Reformation in England had been visible in the outward dominion of scoundrels and in the eclipse of the hereditary virtues of the national character, Lady Jane Grey had lived to show that the defect was not in the Reformed faith, but in the absence of all faith —that the graces of St. Elizabeth could be rivalled by the pupil of Cranmer and Ridley. The Catholic saint had no excellence of which Jane Grey was without the promise; the distinction was in the freedom of the Protestant from the hysterical ambition for an unearthly nature, and in the presence, through a more intelligent creed, of a vigorous and practical understanding.—*Froude's History of England.*